SERVICE MANUAL

(without price)

ELECTRONIC CASH REGISTER

QT-2100 (EX-590)

FEB. 2002

CASIO

INDEX

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CONTENTS

QT-2100 PAGE

1. SPECIFICATIONS 1
2. CONNECTOR LOCATIONS 3
3. INITIALIZE (MAC) OPERATION 4
4. DISASSEMBLY 9
5. CIRCUIT EXPLANATIONS 14
6. OPTION INSTALLATION 27
7. IN LINE 33
8. ON LINE 36
9. DIAGNOSTIC OPERATION 39
10. ERROR CODE LIST 55
11. IC DATA 62
12. PCB LAYOUT 68
13. CIRCUIT DIAGRAMS 70
14. PARTS LIST 90

1. SPECIFICATIONS

1-1. Electrical specifications

		120V	220V	230V	240V
•Power consumption	In operation Max.	0.6 A	0.4A	0.4A	0.4A
	stand-by Max.	0.15 A	0.09A	0.09A	0.08A
•Memory protection	Back-up battery Back-up period Battery life	VL3032/SGA 30 days (25 °C) Replace the battery every 5 years.			
•Clock & Calendar	Recharge time Accuracy Auto calendar	48 hours Within ± 30 sec. per month (25 °C) Effective until 2099 A.D.			

1-2. Environmental specifications

• Operating temperature	0 °C ~ 40 °C
• Operating humidity	10 % ~ 90 %
• Storage temperature	-20 °C ~ 60 °C
• Storage humidity	10 % ~ 90 %
• Vibration strength	1.5 G (The machine must be in the carton box)

1-3. Main components

• CPU	Name Number of control bit Internal RAM	HD6417709AF133B 32 bits 16 KBytes
• RAM1, 2, 3 and 4	Name Capacity	MSM51V18165DSL-6TKFB 2 Mbits x 2pcs(Standard RAM1,2)
• Video RAM	Name Capacity	LC35256FT-70U 256 Kbytes
• Flash ROM	Name Capacity	MBM24DL324BE90PFTN 4 Mbits

1-4. Drawer List

DRAWER NAME	Type	Specification	NOTE
•DL-2780	M	D-18BC-B84M-13*	Europe, other countries
•DL-2916	M	D-18BC-B87M-13*	Europe
•DL-2781	M	D-18BC-B84SM-13*	Europe, UK, Germany
•DL-2917	M	D-18BC-B87SM-13*	Europe, UK, Germany
•DL-3618	L	D-17BT-B65SM-9*	USA, Canada
•DL-3619	L	D-17BT-B65M-9*	Europe

1-5. Option List

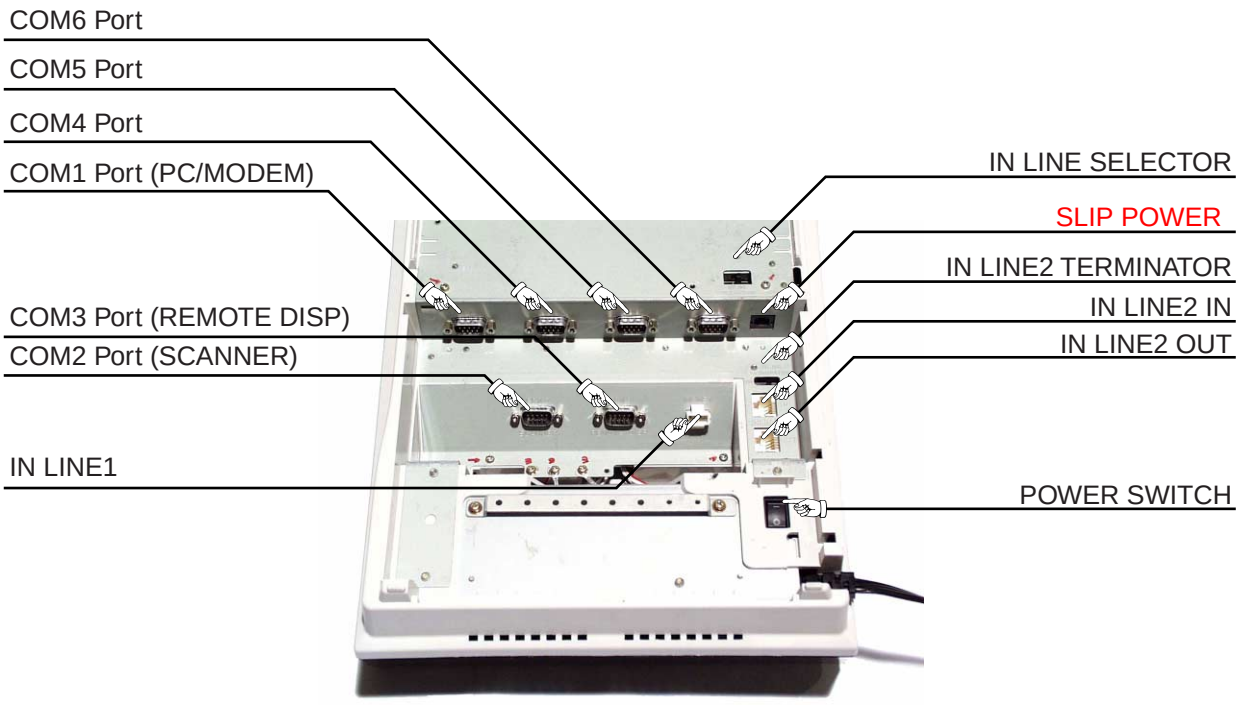
DEVICE NAME	MODEL	NOTE
•Dallas key (Clerk key)	CLK-K22	for 6 clerk
•MCR (Magnetic card reader)	QT-2046MC	
•Rear display	QT-2160D	
•Sheet holder	SH-KIT8	1 holders (1st - 4th)
•Sheet holder	SH-KIT9	2 holders (1st - 4th, 5th - 8th)
•RAM CHIP	QT-2130RAM	Capacity 4 Mbytes, Backup battery
•Multi drawer kit	MDL-11	additional 1 drawer
•Remote display	QT-2163D	
•Option pole	QT-2061S	For Remote display
•Remote display cable	QT-2162S	
•PC cable	PRL-CB-2	
•Sheet cover	WT-81	
•Slip printer	SP-1300	
•Slip printer cable	PRT-CB-8C	Length 1.5m
•Remote printer	UP-250	
•Remote printer	UP-350	
•Remote printer	SA-3015	
•Printer cable	PRT-CB-8B	Length 5m
•Printer cable	PRT-CB-8A	Length 3m
•Printer power supply	PS-170	Power supply unit
•Printer AC	AC-170	AC cord
•Handy scnner	HHS-15	
•CF Memory Card	SDCFB-xx-505	
•Modem	56k External Faxmodem "US Robotics"	
•Modem	56k External Voice Faxmodem "US Robotics"	
•ISDN TA	ELSA MICROLINK TL-Pro (ISDN)	Only in Germany

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacture's instructions.

VORSICHT !
Explosionsgefahr bei unsachgemäßem Austausch der Batterie.
Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ.
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

ADVARSEL !
Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandØren.

2. CONNECTOR LOCATIONS



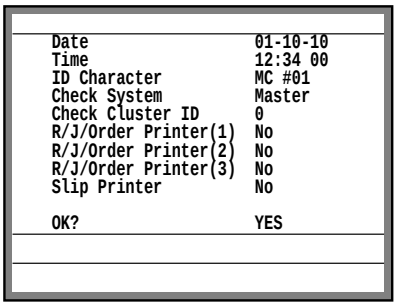
3. INITIALIZE (MAC) OPERATION

3-1.How to initialize QT-2100 terminal

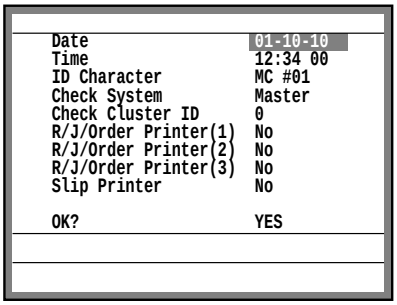
Preparation:

1. All peripheral devices and QT-2100 terminals of this cluster should be turned off.
2. Connect all of the peripheral devices (such as printer, display etc.) to QT-2100 terminal.
3. Connect all QT-2100 terminals by in-line.

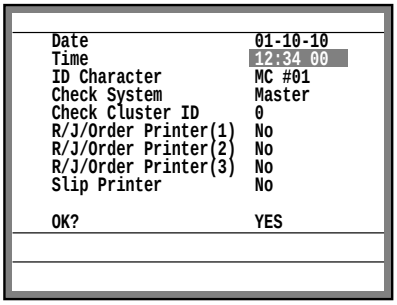
Operation:



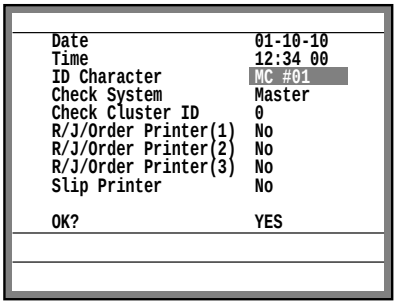
4. Turn on all peripheral devices of a QT-2100 terminal.
5. Turn on this QT-2100 terminal with pressing the left-most key of the top row and release the key after buzzer sounds.
6. After releasing the key, enter “other = 1000, USA = 2000” and press the right part of the <ST> key.



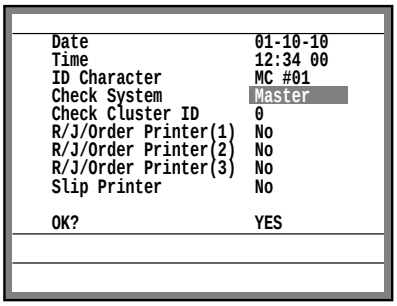
7. Data:
   Enter the current date (YY/MM/DD order) and press the <YES> key.



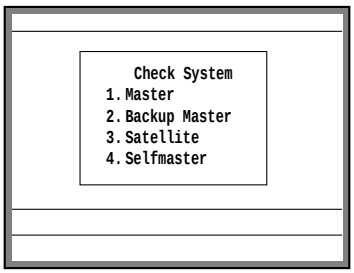
8. Time:
   Enter the current date (HH/MM/SS order) and press the <YES> key.



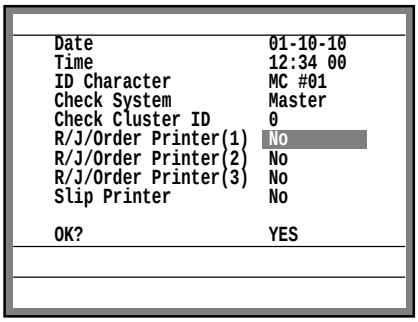
9. ID Character:
   In ID character field, the auto-defined ID No. is shown.
   We recommend that you should not change the value.



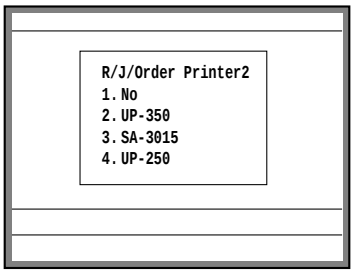
10. Check System:
Align the cursor as shown to the left.
The following is displayed by pressing <YES> key.



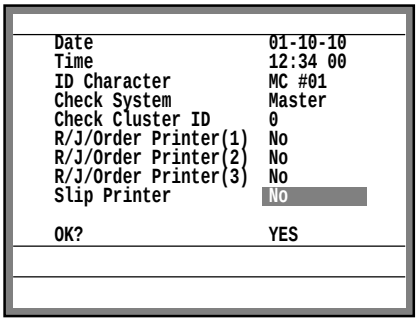
Select one from the items in the above figure and press <YES> key.



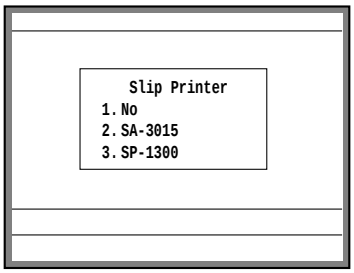
11. Check System:
Align the cursor as shown to the left.
The following is displayed by pressing <YES> key.



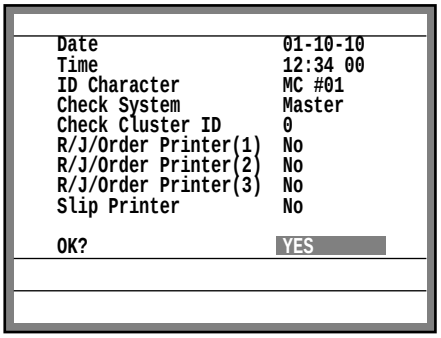
Select one from the items in the above figure and press <YES> key.



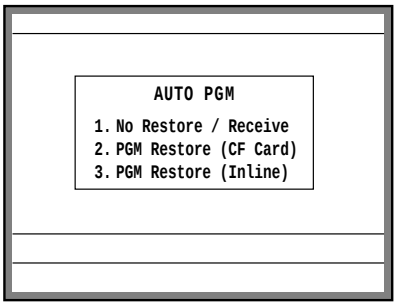
12. Check System:
Align the cursor as shown to the left.
The following is displayed by pressing <YES> key.



Select one from the items in the above figure and press <YES> key.

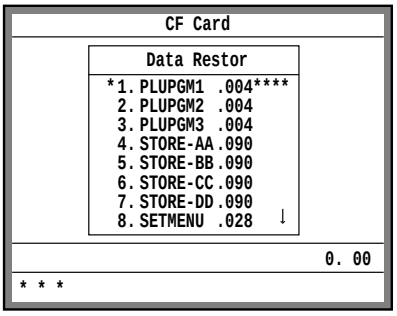


13. Please confirm all of the field and if they are all right, press the <YES> key to proceed the next step.



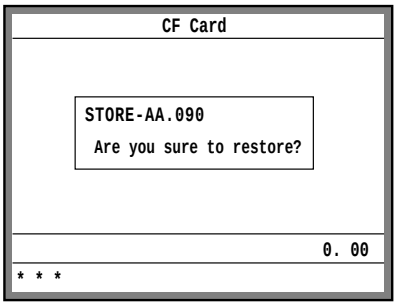
14. If you want to download program data from other terminal, Please select one of “2” or “3” and Press <YES> key.
If you don’t need to download any program data, select “1. No Restore / Receive” and Press <YES> key. The initialization of this terminal is completed.

■ When “2. PGM Restore (CF card)” is selected

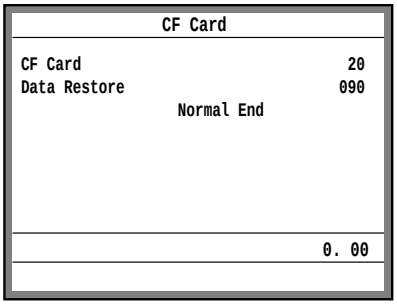


① The file name list of the AUTO PGM data inside the CF CARD is displayed.

Note: The files are displayed in the order they are found. They may not be listed in chronological order.



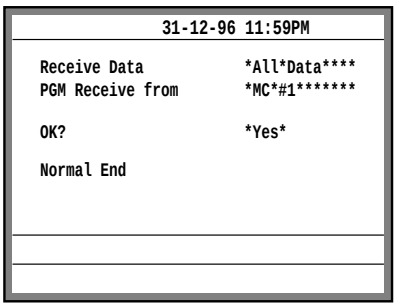
② Selecting a file name displays the confirmation as shown in the left figure.
Press <ESC> to return to the previous screen.



③ When <YES> is pressed: the file is restored from the CF card, followed by “End” display.
Press <NO> or <ESC> to end and return to the previous display.

④ Press <ESC> to end CF Card and change to waiting mode.

■ When “3. PGM Restore (IN LINE)” is selected

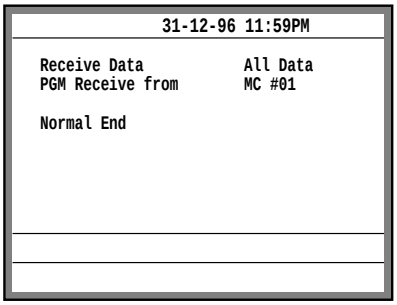


① Select one of the following for the Receive PGM.
1. All Data: Eincluding totalizer, CHK, Index&Detail
2. All PGM

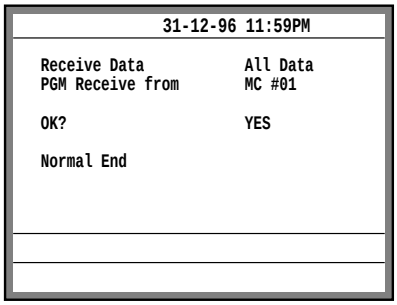
② Select receive terminal.

③ Align the cursor and press <YES> key.

When INLINE AUTO PGM normally ended.



When INLINE AUTO PGM abnormally ended.



Notes: There is no retry even when abnormally ended. In either (normal or abnormal) ending, press <ESC> to end INLINE AUTO PGM and change to waiting mode.

3-2. How to initialize QT-2100 terminal (add/replace one QT-2100)

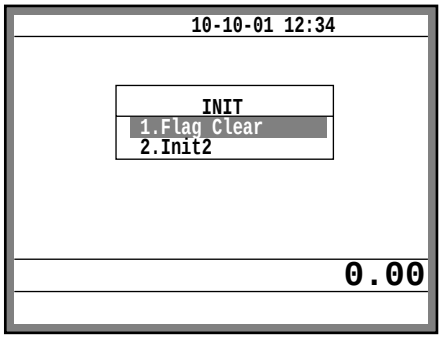
1. All peripheral devices and QT-2100 terminals of this cluster should be turned off.
2. Connect all of the peripheral devices (such as printer, display etc.) to this QT-2100 terminal.
3. Connect this QT-2100 terminal to in-line.
4. Turn on all peripheral devices of this QT-2100 terminal.
   And turn on all QT-2100 except this terminal of the cluster.
5. Turn on this QT-2100 terminal with pressing the left-most key of the top row and release the key after buzzer sounds.
6. After releasing the key, enter “other = 1000, USA = 2000” and press the right part of the <ST> key.
7. Refer to “2-1 How to initialize QT-2100 terminal” on page 3.

2-3. How to flag clear QT-2100 terminal (or INIT2)

Preparation:

1. This QT-2100 terminal should be turned off.
2. Check the connection of all peripheral devices (such as printer, display etc.) of this QT-2100 terminal.
3. Check the connection of this QT-2100 terminal to in-line.

Operation:



4. Turn on this QT-2100 terminal with pressing the right-most key of the top row and release the key after buzzer sounds.
5. After releasing the key, press the <ST> key.
6. Select “1.Flag Clear” and press the <YES> kye.
   The flag clear operation is finished.

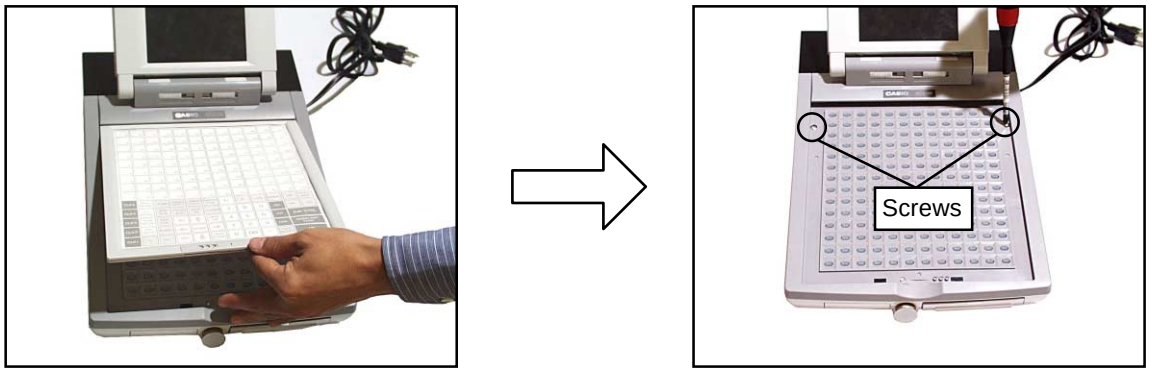
Note:

Performing “Init 2” requires password “8888888888”.

4. DISASSEMBLY

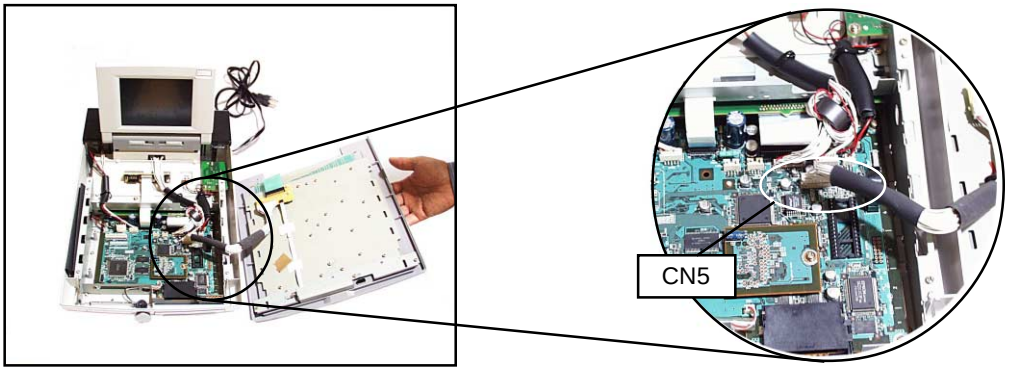
■ UPPER COVER

1. Remove the key sheet and two screws.



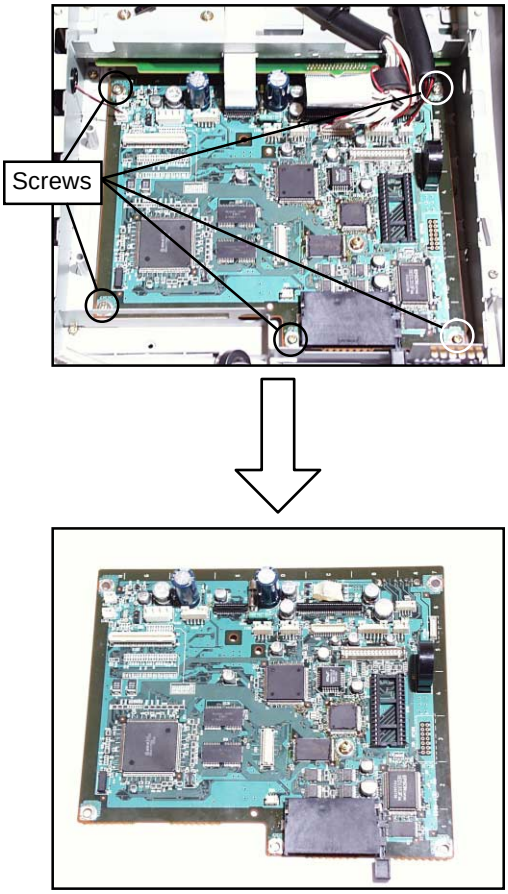
2. Remove the front cover by sliding it forward.

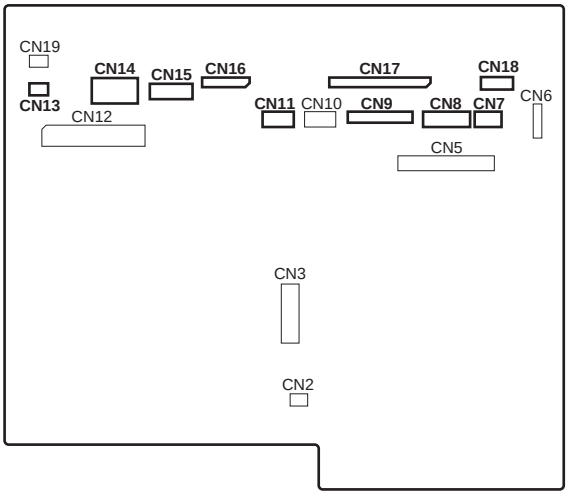
3. Remove the connector (CN5) and the keyboard block.



■ MAIN PCB

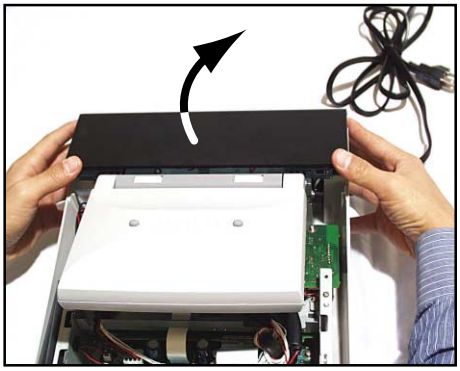
1. Remove the upper cover as shown in steps 1 to 3 of page 9.
2. Remove the seven connectors (CN13, CN14, CN15, CN11, CN9, CN8, CN7, CN18), two FPCs (CN16, CN17) and five screws, and then the MAIN PCB.

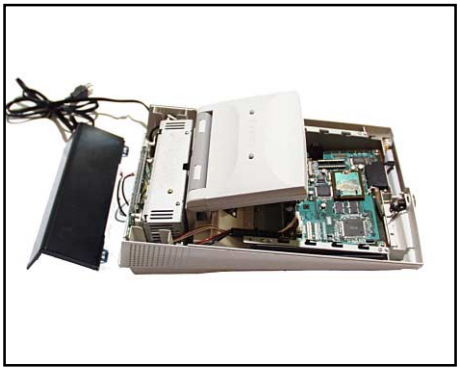




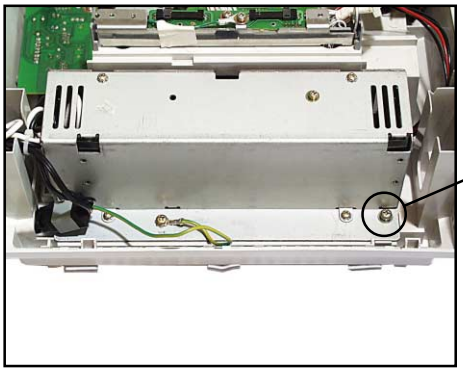
■ POWER UNIT

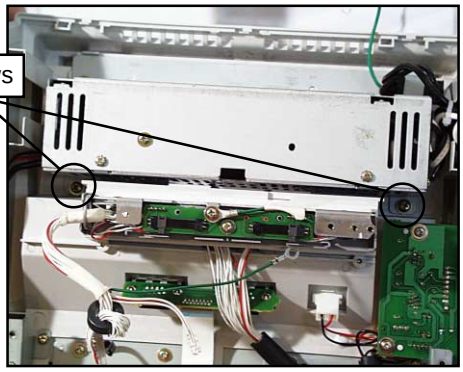
1. Remove the upper cover as shown in steps 1 to 3 of page 9.
2. Remove the rear cover.



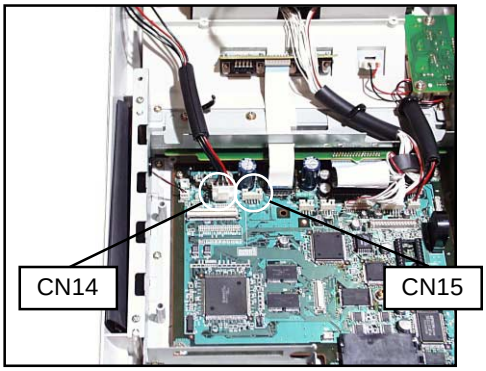


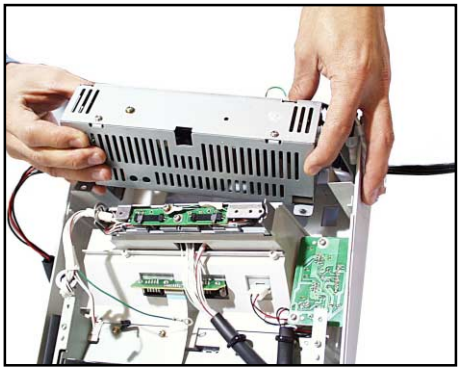
3. Remove the three screws for the power unit.





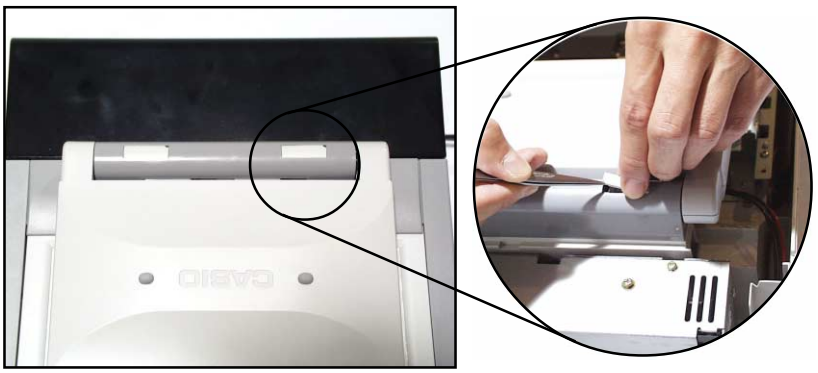
4. Remove the two connectors (CN14, CN15) and the power unit.

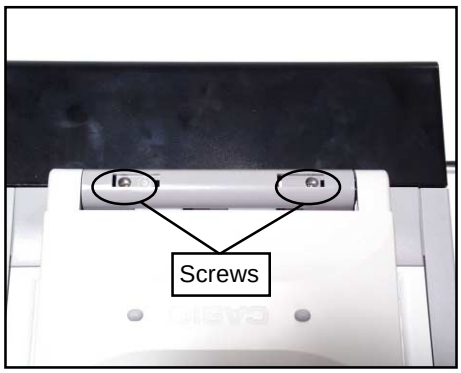




■ LCD MODULE/INVERTER

1. Remove the two blinders (screw covers) and two screws.

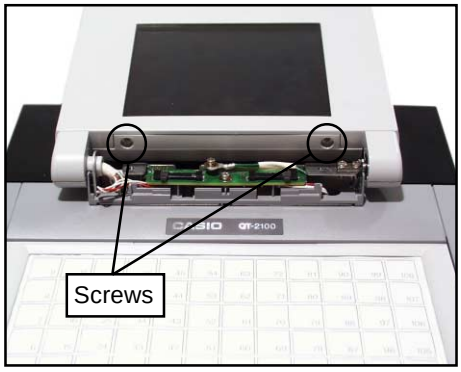




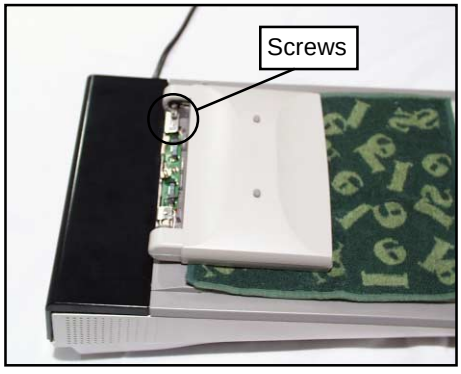
2 Remove the LCD cover.
Note: Be careful not to lose the blind sheets at the volume.

blind sheet x 2

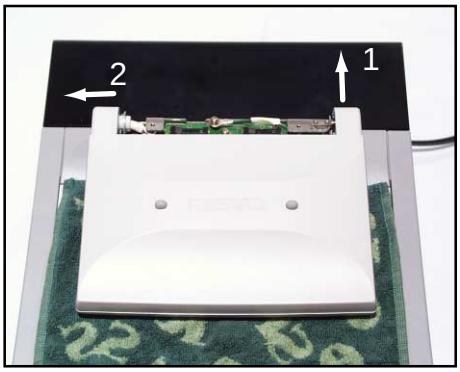
3. Remove the two screws (plastic).
Note: Be careful not to break the screws.

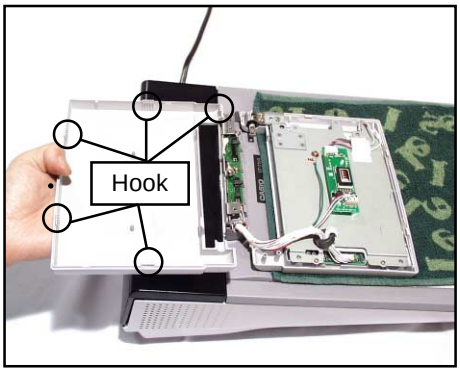


4. Remove the two screws on the hinges.
Note: Put a towel etc. under the LCD unit to prevent from defects.

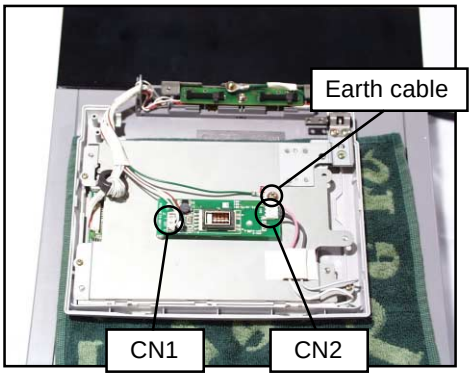


5. Move the LCD unit to the left and remove the LCD cover.
Note: Lift 1 up slightly and move it in the direction of 2.

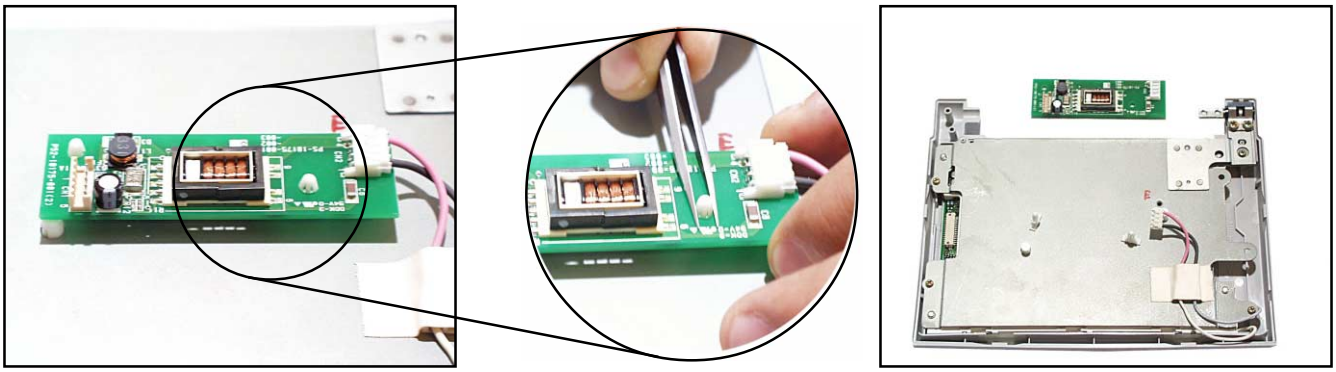




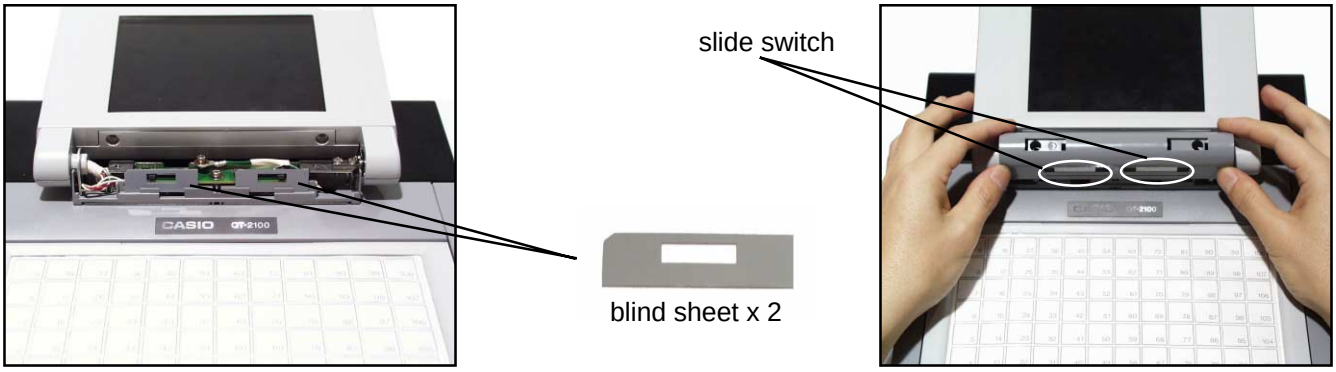
6 Remove the two connectors (CN1, CN2) as well as the earth cable, and then the LCD unit.



7. Remove the two stoppers and the inverter.

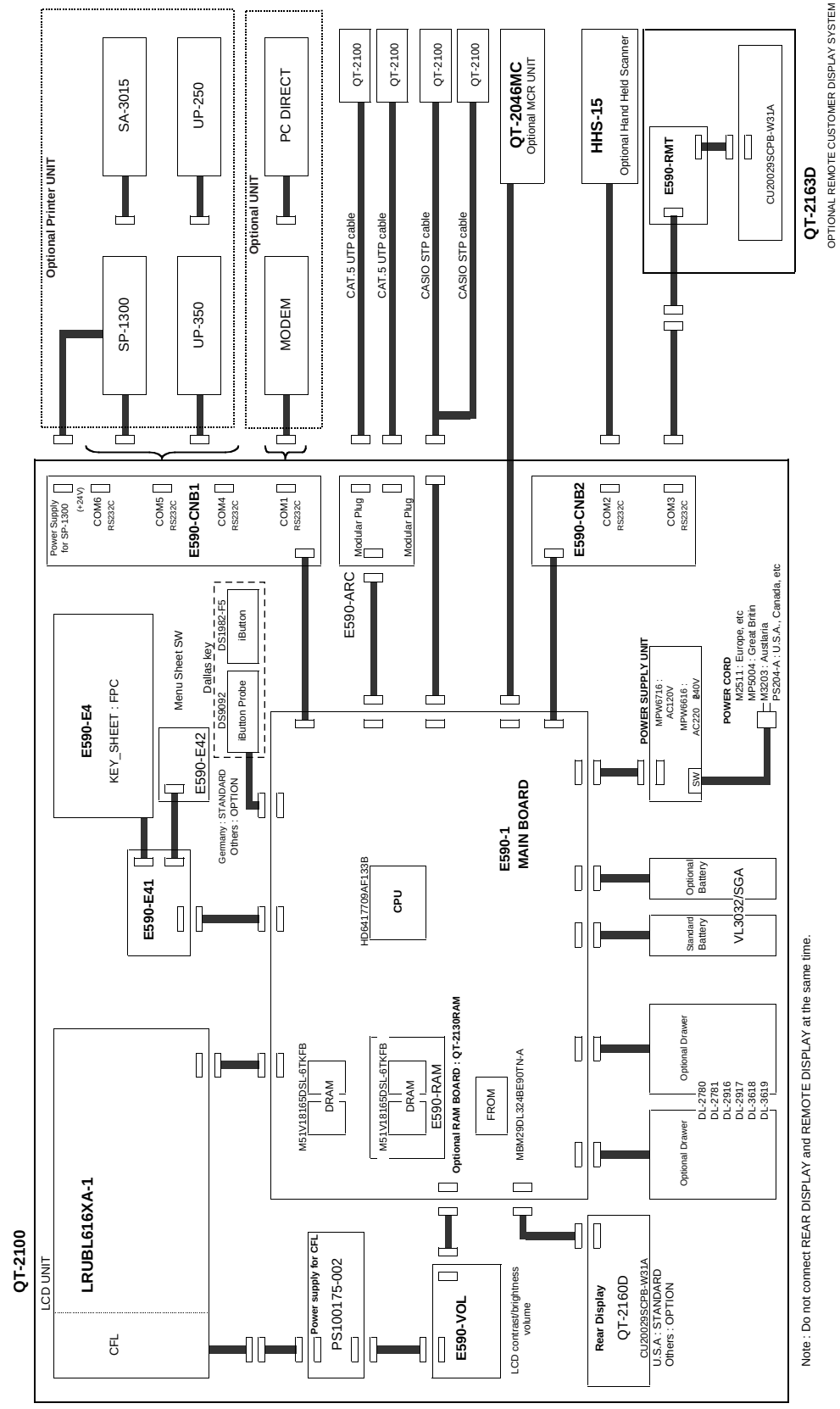


Note: When fixing the Hinge case, put the blind sheets in the direction in the figure below first and fix it by positioning the slide switch in the center.

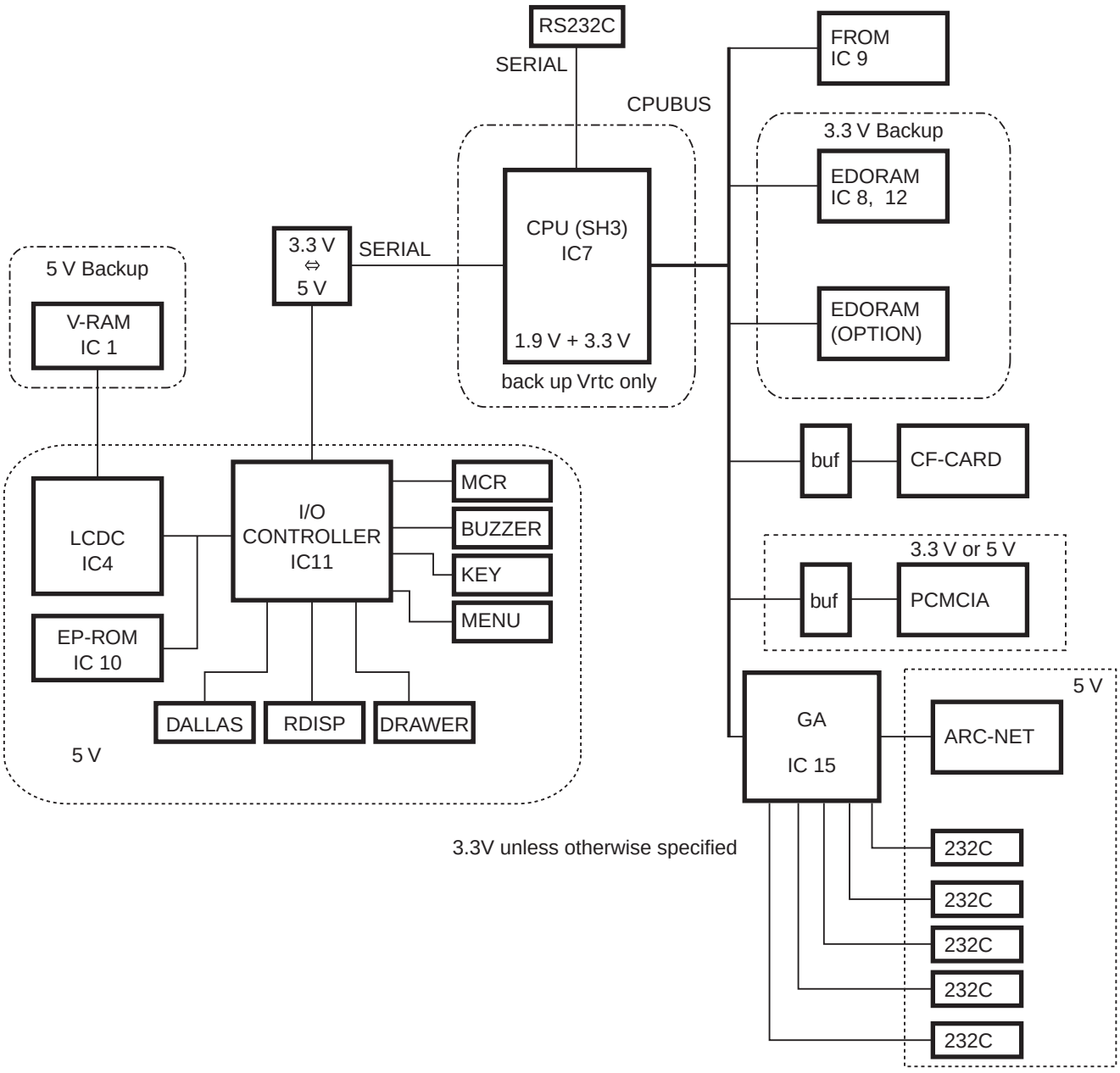


5. CIRCUIT EXPLANATION

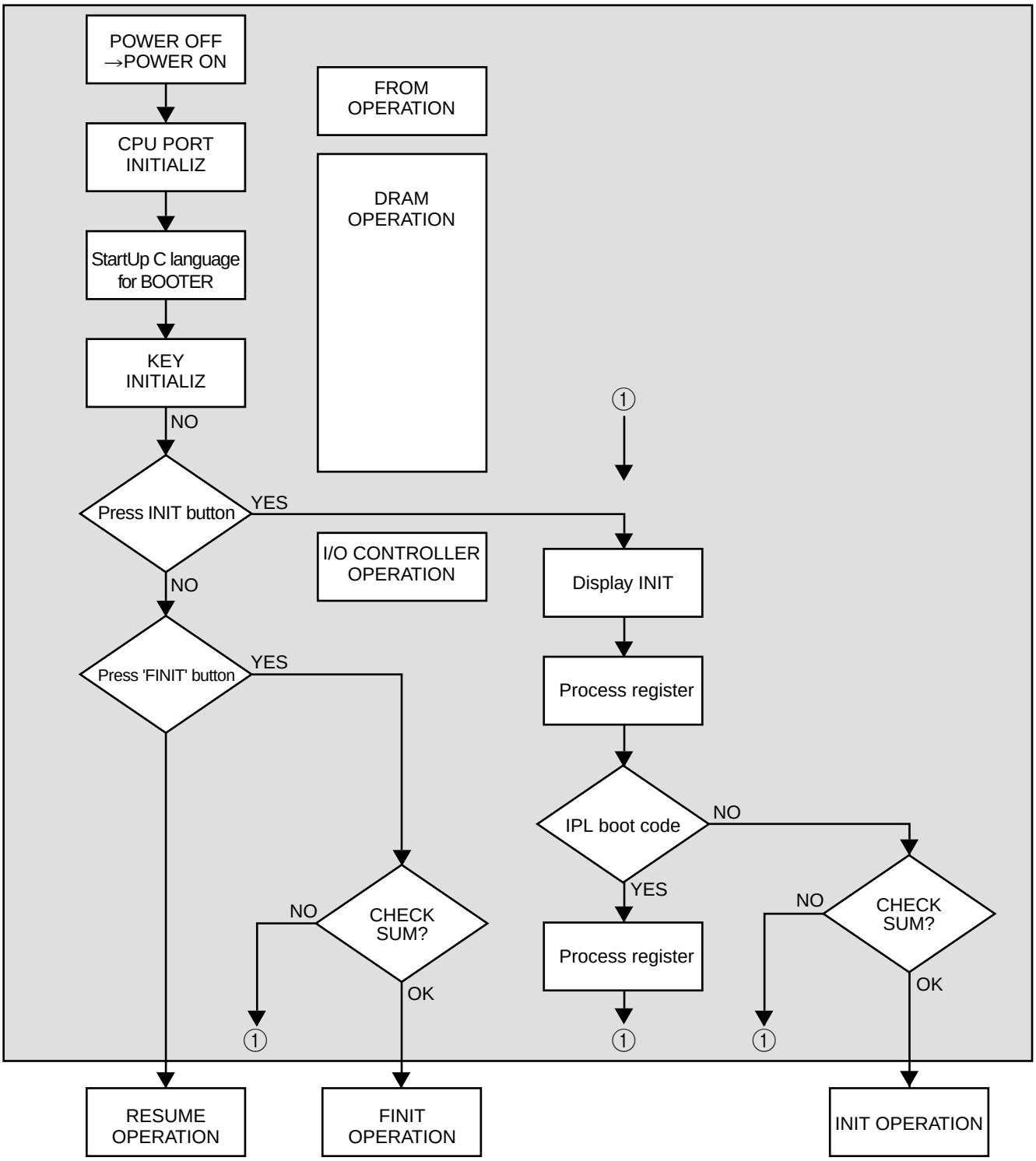
5-1. BLOCK DIAGRAM



5-2. LSI BLOCK DIAGRAM



5-3. SYSTEM FLOW

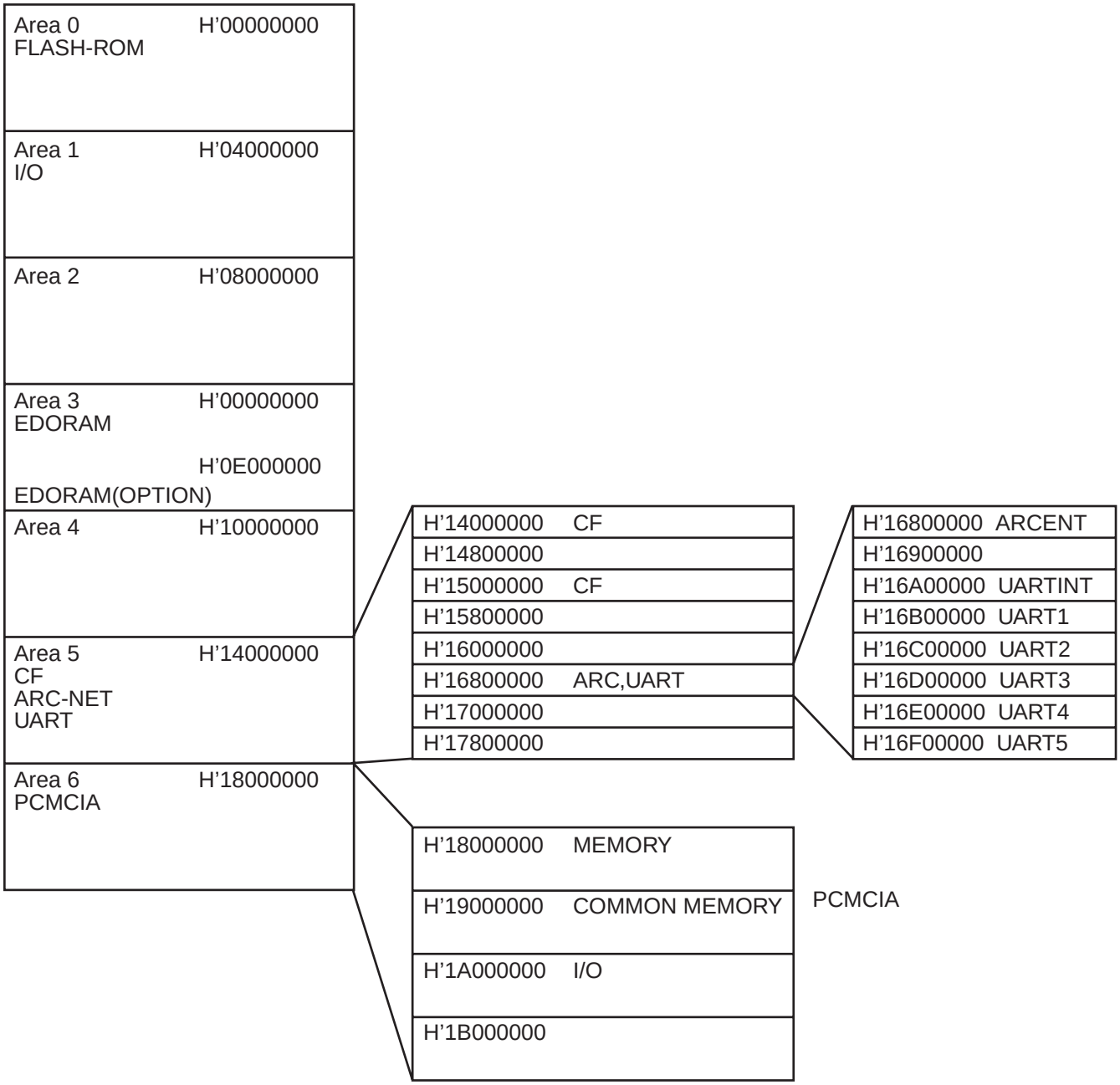


: Operations in BOOT ROM

Note: When CHECK SUM is NG, BOOT ROM waits for power off again because of error.
It sends information about FINIT/INIT/RESUME and the input register at time of INIT to applications.

5-4. CPU (IC7)

5-4-1. MEMORY MAP



5-4-2. Pin description

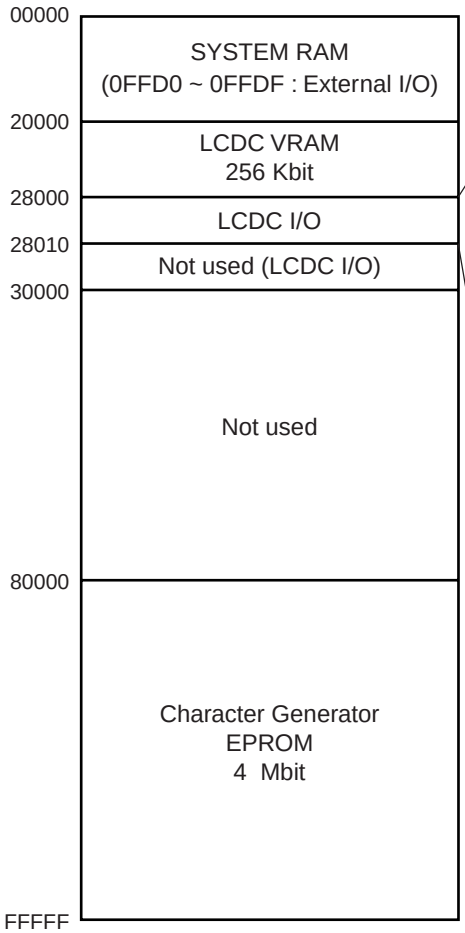
PIN NO	PIN NAME	I/O	DESCRIPTION
1	MD1	IN	VCC (3.3V)
2	MD2	IN	GND
3	Vcc-RTC	-	Vrtc (1.90V)
4	XTAL2	OUT	CLOCK (32.768KHz)
5	EXTAL2	IN	CLOCK (32.768KHz)
6	Vss-RTC	-	RTC (GND)
7	NMI	IN	Not used
8	IRQ0/IRL0/PTH[0]	IN/IN/I/O	Power cut
9	IRQ1/IRL1/PTH[1]	IN/IN/I/O	UART INT
10	IRQ2/IRL2/PTH[2]	IN/IN/I/O	PCMCIA INT
11	IRQ3/IRL3/PTH[3]	IN/IN/I/O	IOC CPU CTS
12	IRQ4/PTH[4]	IN/I/O	ARCENT/Ether Net INT
13	D31/PTB[7]	I/O	Data bus (D31)
14	D30/PTB[6]	I/O	Data bus (D30)
15	D29/PTB[5]	I/O	Data bus (D29)
16	D28/PTB[4]	I/O	Data bus (D28)
17	D27/PTB[3]	I/O	Data bus (D27)
18	D26/PTB[2]	-	Data bus (D26)
19	VssQ	I/O	I/O Power supply (0V)
20	D25/PTA[1]	-	Data bus (D25)
21	VccQ	I/O	I/O Power supply (3.3V)
22	D24/PTA[0]	I/O	Data bus (D24)
23	D23/PTA[7]	I/O	Data bus (D23)
24	D22/PTA[6]	I/O	Data bus (D22)
25	D21/PTA[5]	I/O	Data bus (D21)
26	D20/PTA[4]	I/O	Data bus (D20)
27	Vss	-	GND
28	D19/PTA[3]	I/O	Data bus (D19)
29	Vcc	-	VCC
30	D18/PTA[2]	I/O	Data bus (D16)
31	D17/PTA[1]	I/O	Data bus (D17)
32	D16/PTA[0]	I/O	Data bus (D18)
33	VssQ	I/O	GND
34	D15	I/O	Data bus (D15)
35	VccQ	I/O	I/O Power supply (3.3V)
36	D14	I/O	Data bus (D14)
37	D13	I/O	Data bus (D13)
38	D12	I/O	Data bus (D12)
39	D11	I/O	Data bus (D11)
40	D10	I/O	Data bus (D10)
41	D9	I/O	Data bus (D9)
42	D8	I/O	Data bus (D8)
43	D7	I/O	Data bus (D7)
44	D6	I/O	Data bus (D6)
45	VssQ	-	I/O Power supply (0V)
46	D5	I/O	Data bus (D5)
47	VccQ	I/O	I/O Power supply (3.3V)
48	D4	I/O	Data bus (D4)
49	D3	I/O	Data bus (D3)
50	D2	I/O	Data bus (D2)
51	D1	I/O	Data bus (D1)
52	D0	I/O	Data bus (D0)
53	A0	OUT	Address bus (A0)
54	A1	OUT	Address bus (A1)
55	A2	OUT	Address bus (A2)
56	A3	OUT	Address bus (A3)
57	VssQ	-	I/O Power supply (0V)
58	A4	OUT	Address bus (A4)
59	VccQ	-	I/O Power supply (3.3V)
60	A5	OUT	Address bus (A5)
61	A6	OUT	Address bus (A6)
62	A7	OUT	Address bus (A7)
63	A8	OUT	Address bus (A8)
64	A9	OUT	Address bus (A9)
65	A10	OUT	Address bus (A10)
66	A11	OUT	Address bus (A11)
67	A12	OUT	Address bus (A12)

PIN NO	PIN NAME	I/O	DESCRIPTION
68	A13	OUT	Address bus (A13)
69	VssQ	-	I/O Power supply (0V)
70	A14	OUT	Address bus (A14)
71	VccQ	-	I/O Power supply (3.3V)
72	A15	OUT	Address bus (A15)
73	A16	OUT	Address bus (A16)
74	A17	OUT	Address bus (A17)
75	A18	OUT	Address bus (A18)
76	A19	OUT	Address bus (A19)
77	A20	OUT	Address bus (A20)
78	A21	OUT	Address bus (A21)
79	Vss	-	VSS
80	A22	OUT	Address bus (A22)
81	Vcc	-	VCC
82	A23	OUT	Address bus (A23)
83	VssQ	-	VSS
84	A24	OUT	Address bus (A24)
85	VccQ	-	I/O Power supply (3.3V)
86	A25	OUT	Address bus (A25)
87	BS/PTK[4] (_1:)	OUT/I/O	Not used
88	RD	OUT	Read strobe
89	WE0/DQMLL	OUT	D7-D0 select signal / DQM (EDO)
90	WE1/DQMLU/WE	OUT	DQM (EDO) / Write strobe (PCMCIA)
91	WE2/DQMUL/ICORD / PTK [6]	OUT/OUT/OUT/I/O	DQM (SDRAM) / PCMCIA I/O Read signal
92	WE3/DQMUU/ICOWR / PTK [7]	OUT/OUT/OUT/I/O	DQM (EDO) / PCMCIA I/O Write signal
93	RD/WD (_1:)	OUT	Read / Wrie signal
94	AUDSYNC/PTE[7]	OUT/I/O	COM1 DTR
95	VssQ	-	I/O Power supply (0V)
96	CS0/MCS/PTE[7]	OUT	Chip select for FROM
97	VccQ	-	I/O Power supply (3.3V)
98	CS2/PTK[0]	OUT/I/O	Not used
99	CS3/PTK[1]	OUT/I/O	Not used
100	CS4/PTK[2]	OUT/I/O	Not used
101	CS5/CE1A/PTA[3]	OUT/OUT/I/O	CE1 (Area5 PCMCA)
102	CS6/CE1B	OUT/OUT/I/O	CE1 (Area6 PCMCA)
103	CE2A/PET[4]	OUT/I/O	CE2 (Area5 PCMCA)
104	CE2B/PET[5]	OUT/I/O	CE2 (Area6 PCMCA)
105	CKE/PTK[5]	OUT/I/O	Not used
106	RAS3L/PTJ[0]	OUT/I/O	RAS for RAM (RAM1,2)
107	RAS2L/PTJ[1]	OUT/I/O	Not used
108	CASLL/CASL/PTJ[2]	OUT/I/O	CAS for RAM (RAM1,3)
109	VssQ	-	I/O Power supply (0V)
110	CASLH/CASU/PTJ[3]	OUT/I/O	CAS for RAM (RAM1,3)
111	VccQ	-	I/O Power supply (3.3V)
112	CASHL/PTJ[4]	OUT/I/O	CAS for RAM (RAM2)
113	CASHH/PTJ[5]	OUT/I/O	CAS for RAM (RAM2)
114	DACK0/PTD[5]	OUT/I/O	Not used
115	DACK/PTD[7]	OUT/I/O	Not used
116	CAS2L/PTE[6]	OUT/I/O	Not used
117	CAS2H/PTE[3]	OUT/I/O	Not used
118	RAS3U/PTE[2]	OUT/I/O	RAS for RAM (RAM3)
119	RAS3U/PTE[1]	OUT/I/O	Not used
120	TDO/PTE[0]	OUT/I/O	DATA OUTPUT (H-UDI)
121	BACK	OUT	Not used
122	BREQ	IN	Not used
123	WAIT	IN	WAIT signal (PCMCIA)
124	RESETM	IN	RESET signal
125	ADTRG/PTH[5]	IN	Not used
126	I/OIS16/PTG[7]	IN/I/O	IOIS16 (PCMCIA)
127	ASEMDO/PTG[6]	IN	ASE mode (H-UDI)
128	ASEBRKAK/PTG[5]	OUT/I/O	ASE break (H-UDI)
129	PTG[4]	IN/OUT	Not used
130	AUDATA[3]/PTG[3]	I/O	Not used
131	AUDATA[2]/PTG[2]	I/O	Not used
132	Vss	-	VSS
133	AUDATA[1]/PTG[1]	I/O	Not used
134	Vcc	-	VCC (1.9V)
135	AUDATA[0]/PTG[0]	I/O	Not used
136	TRST/PTF[7]/PINT[5]	IN	RESET (H-UDI)
137	TMS/PTF[6]/PINT[14]	IN	MODE SELECT (H-UDI)
138	TDI/PTF[5]/PINT[13]	IN	DATA INPUT (H-UDI)
139	TCK/PTF[4]/PINT[12]	IN	CLOCK (H-UDI)

PIN NO	PIN NAME	I/O	DESCRIPTION
140	IRSL[3]/PTF[3]/PINT[11]	IN	Not used
141	IRSL[2]/PTF[2]/PINT[10]	IN	Not used
142	IRSL[1]/PTF[1]/PINT[9]	IN	Not used
143	IRSL[0]/PTF[0]/PINT[8]	IN	CF CARD IN/OUT signal
144	MD0	IN	CLOCK MODE
145	Vcc-PLL1	-	PLL Power supply (1.9V)
146	CAP1	-	Not used
147	Vss-PLL1	-	PLL Power supply (0V)
148	Vss-PLL2	-	PLL Power supply (0V)
149	CAP2	-	Not used
150	Vcc-PLL2	-	PLL Power supply (1.9V)
151	AUDCK/PTH[6]	IN	VCC (3.3V)
152	Vss	-	VSS
153	Vss	-	VSS
154	Vcc	-	VCC (1.9V)
155	XTAL	OUT	CLOCK 8.25MHz
156	EXTAL	IN	CLOCL 8.25MHz
157	STAUTS0/PTJ[6](_1:)	OUT/I/O	VCC (3.3V)
158	STAUTS1/PTJ[7](_1:)	OUT/I/O	VCC (3.3V)
159	TCK/PTH[7]	I/O	RESET LATCH signal
160	IRQOUTJ(_1:)	OUT(_1:)	Not used
161	VssQ	-	I/O Power supply (0V)
162	CKI/O	I/O	VCC (3.3V)
163	VccQ	-	I/O Power supply (3.3V)
164	TxD0/SCPT[0]	OUT	IOC CPU TxD
165	SCK0/SCPT[1]	I/O	VCC (3.3V)
166	TxD1/SCPT[2]	OUT	Not used
167	SCK1/SCPT[3]	I/O	IOC PWD
168	TxD2/SCPT[4]	OUT	COM1 TxD
169	SCK2/SCPT[5]	I/O	RESET LATCH
170	RTS2/SCPT[6]	OUT/I/O	COM1 RTS
171	RxD0/SCPT[0]	IN	IOC CPU RxD
172	RxD1/SCPT[2]	IN	VCC (3.3V)
173	Vss	-	VSS
174	RxD2/SCPT[4]	IN	COM1 RxD
175	Vcc	-	VCC (1.9V)
176	CTS2/IRO/SCPT[7]	IN	COM1 CTS
177	MCS[7]/PTC[7]/PINT[7]	OUT/I/O/IN	PCMCIA I/O signal
178	MCS[6]/PTC[6]/PINT[7]	OUT/I/O/IN	IOC CPU RESET (OUT)
179	MCS[5]/PTC[5]/PINT[5]	OUT/I/O/IN	IOC CPU RTS (OUT)
180	MCS[4]/PTC[4]/PINT[4]	OUT/I/O/IN	COM1 CI (IN)
181	VssQ	-	I/O Power supply (0V)
182	WAKEUP/PTD[3]	OUT/I/O	VSS
183	VccQ	-	I/O Power supply (3.3V)
184	RESETOUTR/PTD[2]	OUT/I/O	VCC (3.3V)
185	MCS[3]/PTC[3]/PINT[3]	OUT/I/O/IN	COM1 DSR (IN)
186	MCS[2]/PTC[2]/PINT[2]	OUT/I/O/IN	COM1 CD (IN)
187	MCS[1]/PTC[1]/PINT[1]	OUT/I/O/IN	VCC (3.3V)
188	MCS[0]/PTC[0]/PINT[0]	OUT/I/O/IN	VCC (3.3V)
189	DRAK0/PTD[1]	OUT/IN	VCC (3.3V)
190	DRAK1/PTD[0]	OUT/IN	VCC (3.3V)
191	DREQ0/PTD[4]	IN/I/O	VCC (3.3V)
192	DREQ1/PTD[6]	IN/I/O	VCC (3.3V)
193	RESETP	IN	RESET
194	CA	IN	VCC (3.3V)
195	MD3	IN	VSS
196	MD4	IN	VCC (3.3V)
197	MD5	IN	VCC (3.3V)
198	AVss	-	VSS
199	AN[0]/PTL[0]	IN	IOC CPU DSR (IN)
200	AN[1]/PTL[1]	IN	VCC (3.3V)
201	AN[2]/PTL[2]	IN/OUT/IN	VCC (3.3V)
202	AN[3]/PTL[3]	IN/OUT/IN	VCC (3.3V)
203	AN[4]/PTL[4]	IN/OUT/IN	VCC (3.3V)
204	AN[5]/PTL[5]	IN/OUT/IN	VCC (3.3V)
205	Avcc	-	Anaog power supply (3.3V)
206	AN[6]/DA[1]/PTL[6]	IN/OUT/IN	Not used
207	AN[7]/DA[1]/PTL[7]	IN/OUT/IN	Not used
208	AVss	-	Anaog power supply (0V)

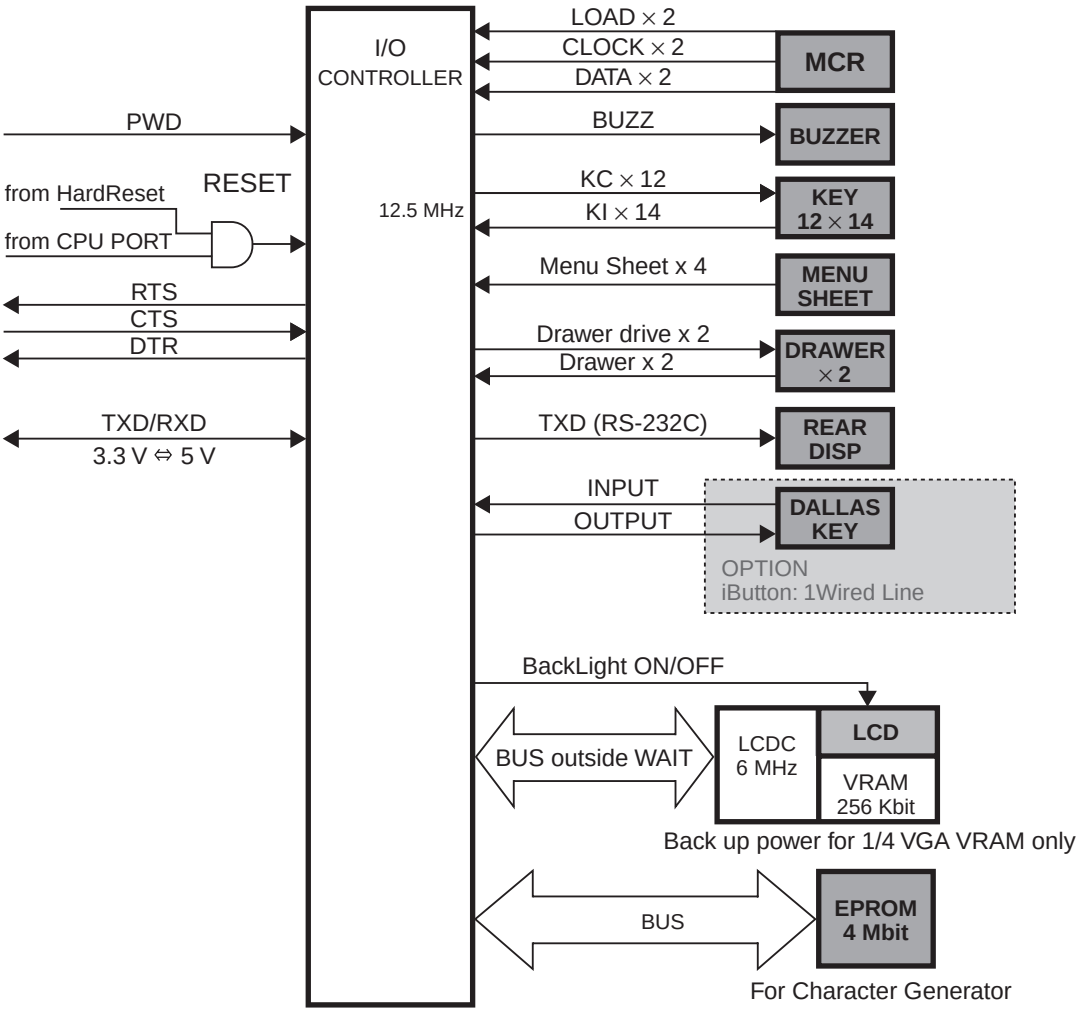
5-5. I/O CONTROLLER (IC11)

5-5-1. MEMORY MAP



ADDRESS		R/W	FUNCTION	REMARK
D0 ~ D7	28000H	–		
D0	28001H	W	RAMS	Set up basic performance mode for SED1353.
D1			LCDE	
D2			4/8	
D3			CRAY	
D4			OR	
D5			PANEL	
D6			REV	
D7			DISP	
D0 ~ D7	28002H	W	C/R	Number of horizontally displayed characters per 1 line
D0 ~ D7	28003H	W	LPW	Pulse width of LP per 1 line
D0 ~ D7	28004H	W	SLTL	Number of vertical lines in the LCD (lower 8 bit)
D0 ~ D7	28005H	W	SLTH	Number of vertical lines in the LCD (upper 2 bit)
D0 ~ D7	28006H	R/W	SAD1L	Start address in the first screen (lower 8 bit)
D0 ~ D7	28007H	R/W	SAD1H	Start address in the first screen (upper 8 bit)
D0 ~ D7	28008H	R/W	SAD2L	Start address in the second screen (lower 8 bit)
D0 ~ D7	28009H	R/W	SAD2H	Start address in the second screen (upper 8 bit)
D0 ~ D7	2800AH	W	SL1L	Number of vertical lines in the fist screen (lower 8 bit)
D0 ~ D7	2800BH	W	SL1H	Number of vertical lines in the fist screen (lower 8 bit)
D0 ~ D7	2800CH	–		
D0 ~ D7	2800DH	W	APADJ	Address pitch adjust in the virtual screen
D0 ~ D7	2800EH	W	GS1	Gradation conversion code
D0 ~ D7	2800FH	W	GS2	Gradation conversion code

5-5-2. BLOCK DIAGRAM

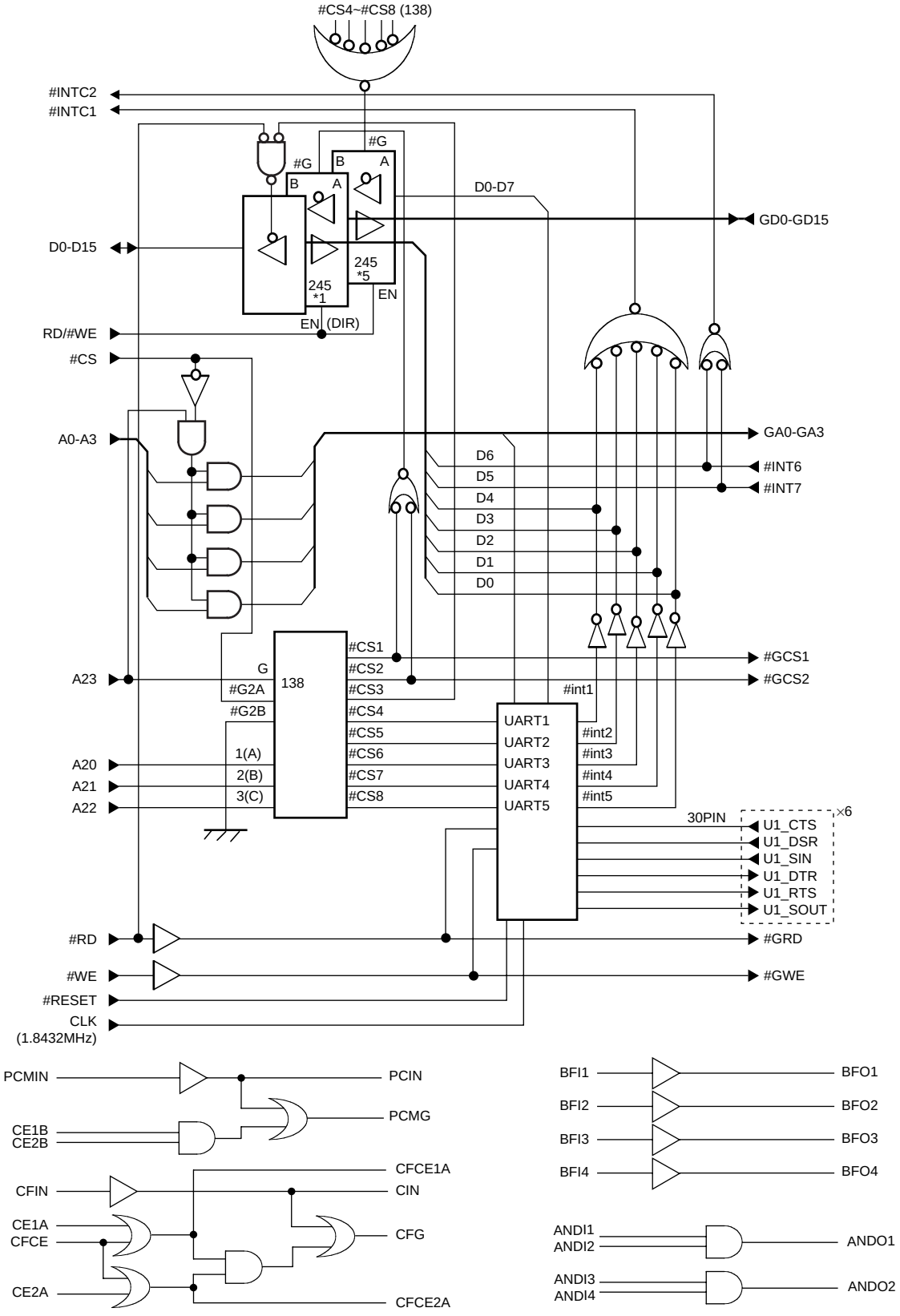


5-5-3. Pin description

PIN NO	PIN NAME	I/O	DESCRIPTION	PIN NO	PIN NAME	I/O	DESCRIPTION
1	P120	I	KEY INPUT	51	P83	O	ADDRESS (A3)
2	P121	I	KEY INPUT	52	P84	O	ADDRESS (A4)
3	P122	I	KEY INPUT	53	P85	O	ADDRESS (A5)
4	P123	I	KEY INPUT	54	P86	O	ADDRESS (A6)
5	P124	I	KEY INPUT	55	P87	O	ADDRESS (A7)
6	P125	I	KEY INPUT	56	P40	I/O	DATA (D0)
7	P126	I	KEY INPUT	57	P41	I/O	DATA (D1)
8	P127	I	KEY INPUT	58	P42	I/O	DATA (D2)
9	VDD	VCC	VCC	59	P43	I/O	DATA (D3)
10	X2	I/O	CLOCK 12.5MHz	60	P44	I/O	DATA (D4)
11	X1	I/O	CLOCK 12.5MHz	61	P45	I/O	DATA (D5)
12	VSS	GND	GND	62	P46	I/O	DATA (D6)
13	XT2	GND	GND	63	P47	I/O	DATA (D7)
14	XT1	GND	GND	64	P50	O	ADDRESS (A8)
15	RESET	O	RESET	65	P51	O	ADDRESS (A9)
16	P00	I	MCR CLOCK1	66	P52	O	ADDRESS (A10)
17	P01	I	MCR CLOCK2	67	P53	O	ADDRESS (A11)
18	P02	I	MCR CARD LOAD1	68	P54	O	ADDRESS (A12)
19	P03	I	MCR CARD LOAD2	69	P55	O	ADDRESS (A13)
20	P04	I	CTS	70	P56	O	ADDRESS (A14)
21	P05	I	KEY INPUT (DALLAS KEY)	71	P57	O	ADDRESS (A15)
22	P06	I	PWD	72	VSS	GND	GND
23	AVDD	VCC	VCC	73	P60	O	ADDRESS (A16)
24	AVREF0	VCC	VCC	74	P61	O	ADDRESS (A17)
25	P10	I	KEY INPUT	75	P62	O	ADDRESS (A18)
26	P11	I	KEY INPUT	76	P63	O	ADDRESS (A19)
27	P12	I	KEY INPUT	77	P64	O	READ signal
28	P13	I	KEY INPUT	78	P65	O	WRITE signal
29	P14	I	KEY INPUT	79	P66	I	WAIT signal
30	P15	I	KEY INPUT	80	P67	Not used	Not used
31	P16	I	KEY INPUT	81	VDD	O	VDD
32	P17	I	KEY INPUT	82	P100	O	KEY OUTPUT (Common)
33	AVSS	GND	GND	83	P101	O	KEY OUTPUT (Common)
34	P130	O	DRAWER DRIVE1	84	P102	O	KEY OUTPUT (Common)
35	P131	O	DRAWER2 DRIVE2	85	P103	O	KEY OUTPUT (Common)
36	AVREF1	VCC	VCC	86	P30	O	KEY OUTPUT (Common)
37	P70	VCC	VCC	87	P31	O	KEY OUTPUT (Common)
38	P71	I	TxD	88	P32	O	KEY OUTPUT (Common)
39	P72	O	BACKLIGHT ON/OFF	89	P33	O	KEY OUTPUT (Common)
40	P20	I	RxD	90	P34	O	KEY OUTPUT (Common)
41	P21	O	TxD	91	P35	O	KEY OUTPUT (Common)
42	P22	O	KEY OUTPUT (DALLAS KEY)	92	P36	O	KEY OUTPUT (Common)
43	P23	O	LCD	93	P37	O	KEY OUTPUT (Common)
44	P24	O	BUZZER	94	TEST	GND	GND
45	P25	VCC	VCC	95	P90	I	DRAWER STATUS1
46	P26	O	RTS	96	P91	I	DRAWER STATUS2
47	P27	O	DTR	97	P92	I	MENU SHEET STATUS
48	P80	O	ADDRESS (A0)	98	P93	I	MENU SHEET 0
49	P81	O	ADDRESS (A1)	99	P94	O	MENU SHEET 1
50	P82	O	ADDRESS (A2)	100	P95	O	MENU SHEET 2

5-6. G/A (IC15)

5-6-1. BLOCK DIAGRAM

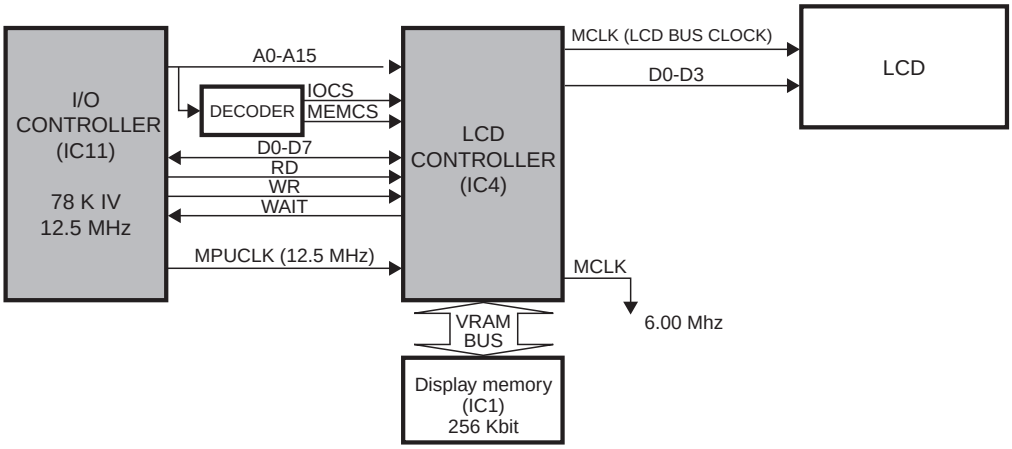


5-6-2. Pin description

PIN NO	PIN NAME	I/O	DESCRIPTIN	PIN NO	PIN NAME	I/O	DESCRIPTIN
1	VDD	VDD	VDD	73	VDD	VDD	VDD
2	GD0	I/O	ARC DATA (D0)	74	CLKOUT	O	CLOCK 8MHz
3	GD1	I/O	ARC DATA (D1)	75	CLKIN	I	CLOCK 8MHz
4	GD2	I/O	ARC DATA (D2)	76	GND	I	GND
5	GD3	I/O	ARC DATA (D3)	77	CS	I	Chip Enable 1
6	GD4	I/O	ARC DATA (D4)	78	A0	I	ADDRESS (A1)
7	TVDD	VDD	VDD	79	A1	I	ADDRESS (A2)
8	TGND	GND	GND	80	A2	I	ADDRESS (A3)
9	GD5	I/O	ARC DATA (D5)	81	A3	I	GND
10	GD6	I/O	ARC DATA (D6)	82	A23	I	ADDRESS (A23)
11	GD7	I/O	ARC DATA (D7)	83	A20	I	ADDRESS (A20)
12	GD8	I/O	VDD	84	A21	I	ADDRESS (A21)
13	GD9	I/O	VDD	85	A22	I	ADDRESS (A22)
14	TGND	GND	GND	86	RD	I	IO READ
15	GD10	I/O	VDD	87	WE	I	IO WRITE
16	GD11	I/O	VDD	88	INT6	I	INT for ARC
17	GD12	I/O	VDD	89	INT7	VDD	VDD
18	GD13	I/O	VDD	90	TVDD	VDD	VDD
19	GD14	I/O	VDD	91	RESET	I	RESET
20	TVDD	VDD	VDD	92	RD_WE	I	READ/WRITE signal
21	TGND	GND	GND	93	TESTB	I	VDD
22	GD15	I/O	VDD	94	U1_CTSB	I	CST2
23	GA0	O	ARC ADDRESS (A0)	95	U1_DSRB	I	DSR2
24	GA1	O	ARC ADDRESS (A1)	96	U1_SIN	I	RXD2
25	GA2	O	ARC ADDRESS (A2)	97	U1_DTRB	O	DTR2
26	GA3	O	Not used	98	U1_RTSB	O	RTS2
27	TGND	GND	GND	99	U1_SOUT	O	TXD2
28	D0	I/O	DATA (D0)	100	U2_CTSB	I	CTS3
29	D1	I/O	DATA (D1)	101	U2_DSRB	I	DSR3
30	D2	I/O	DATA (D2)	102	U2_SIN	I	RXD3
31	TVDD	VDD	VDD	103	U2_DTRB	O	DTR3
32	TGND	GND	GND	104	U2_RTSB	O	RTS3
33	D3	I/O	DATA (D3)	105	U2_SOUT	O	TXD3
34	D4	I/O	DATA (D4)	106	U3_CTSB	I	CTS4
35	D5	I/O	DATA (D5)	107	U3_DSRB	I	DSR4
36	VDD	VDD	VDD	108	VDD	VDD	VDD
37	GND	GND	GND	109	GND	GND	GND
38	GND	GND	GND	110	GND	GND	GND
39	D6	I/O	DATA (D6)	111	U3_SIN	I	RXD4
40	D7	I/O	DATA (D7)	112	U3_DTRB	O	DTR4
41	D8	I/O	VDD	113	U3_RTSB	O	RTS4
42	TGND	GND	GND	114	U3_SOUT	O	TXD4
43	D9	I/O	VDD	115	U4_CTSB	I	CTS5
44	D10	I/O	VDD	116	U4_DSRB	I	DSR5
45	D11	I/O	VDD	117	U4_SIN	I	RXD5
46	TVDD	VDD	VDD	118	U4_DTRB	O	DTR5
47	TGND	GND	GND	119	U4_RTSB	O	RTS5
48	D12	I/O	VDD	120	U4_SOUT	O	TXD5
49	D13	I/O	VDD	121	U5_CTSB	I	CTS6
50	D14	I/O	VDD	122	U5_DSRB	I	DSR6
51	TGND	GND	GND	123	U5_SIN	I	RXD6
52	D15	I/O	VDD	124	U5_DTRB	O	DTR6
53	INTC2	O	INT for ARC	125	U5_RTSB	O	RTS6
54	INTC1	O	INT for COM	126	U5_SOUT	O	TXD6
55	GCS1	O	Chip Select for ARC	127	TVDD	VDD	VDD
56	GCS2	O	Not used	128	PCMIN	I	PCMCD1
57	GRD	O	Read signal for ARC	129	CE1B	I	CE1
58	GWE	O	Write signal for ARC	130	CE2B	I	CE2
59	PCIN	O	PCMCIA IN/OUT signal	131	CFIN	I	CFCD1
60	PCMG	O	Enable for PCMCIA	132	CE1A	I	CE1
61	CFCE1A	O	Chip Enable1 for CF CARD	133	CFCE	I	ADDRESS (A23)
62	CIN	O	CF CARD IN/OUT signal	134	CE2A	I	CE2
63	CFG	O	Enable for CF CARD	135	BFI1	I	RXD1
64	CFCE2A	O	Chip Enable2 for CF CARD	136	BFI2	I	CTS1
65	ANDO1	O	WAIT signal	137	BFI3	I	CI1
66	ANDO2	O	CD	138	BFI4	I	DSR1
67	BFO1	O	RXD	139	ANDI1	I	WAIT for CF CARD
68	BFO2	O	CTS	140	ANDI2	I	WAIT for PCMCIA
69	BFO3	O	CI	141	ANDI3	I	CD1
70	BFO4	O	DSR	142	ANDI4	I	CD1
71	GND	GND	GND	143	GND	GND	GND
72	GND	GND	GND	144	GND	GND	GND

5-7. LCD CONTROLLER (IC4)

5-7-1. BLOCK DIAGRAM



5-7-2. Pin description

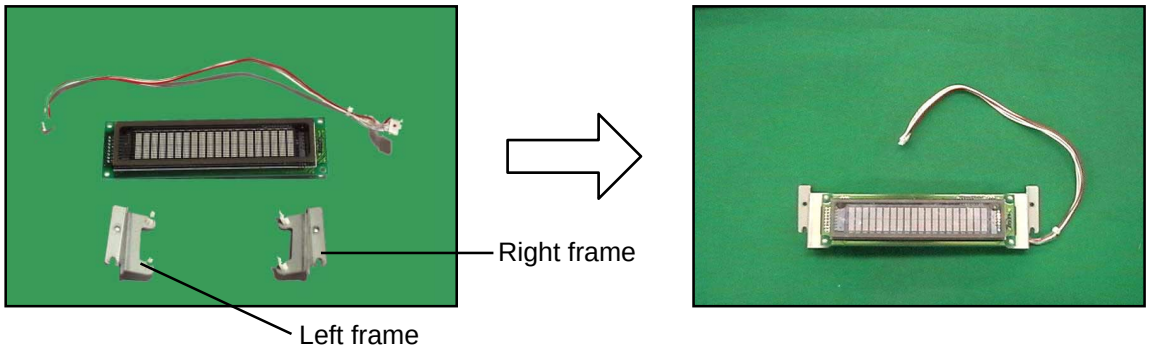
PIN NO	NAME	I/O	DESCRIPTION	PIN NO	NAME	I/O	DESCRIPTION
1	DB7	I/O	System data bus	51	VD7	I/O	Display memory data bus
2	Vss		GND	52	Vss		GND
3	Vdd		Vcc	53	Vdd		Vcc
4	DB8	I/O	Connected to Vdd	54	VD8	I/O	Not used
5	DB9	I/O	Connected to Vdd	55	VD9	I/O	Not used
6	DB10	I/O	Connected to Vdd	56	VD10	I/O	Not used
7	DB11	I/O	Connected to Vdd	57	VD11	I/O	Not used
8	DB12	I/O	Connected to Vdd	58	VD12	I/O	Not used
9	DB13	I/O	Connected to Vdd	59	VD13	I/O	Not used
10	DB14	I/O	Connected to Vdd	60	VD14	I/O	Not used
11	DB15	I/O	Connected to Vdd	61	VD15	I/O	Not used
12	AB0	I	System address bus	62	VA11	O	Display memory address bus
13	AB1	I	System address bus	63	VA12	O	Display memory address bus
14	AB2	I	System address bus	64	VA13	O	Display memory address bus
15	AB3	I	System address bus	65		O	Display memory address bus
16	AB4	I	System address bus	66	VA15	O	Display memory address bus
17	AB5	I	System address bus	67	VWE	O	Write signal for display memory
18	AB6	I	System address bus	68	VCS0	O	Select display memory
19	AB7	I	System address bus	69	VCS1	O	Not used
20	AB8	I	System address bus	70	UD3	O	Panel display data bus
21	AB9	I	System address bus	71	UD2	O	Panel display data bus
22	AB10	I	System address bus	72	UD1	O	Panel display data bus
23	AB11	I	System address bus	73	UD0	O	Panel display data bus
24	AB12	I	System address bus	74	LD3	O	Not used
25	AB13	I	System address bus	75	LD2	O	Not used
26	AB14	I	System address bus	76	LD1	O	Not used
27	AB15	I	Connected to GND	77	LD0	O	Not used
28	AB16	I	Connected to GND	78	YD	O	Vertical scanning start pulse
29	AB17	I	Connected to GND	79	LP	O	Display data latch clock
30	AB18	I	Connected to GND	80	WF	O	Not used
31	AB19	I	Connected to GND	81	XSCL	O	Display data shift clock
32	RESET	I	Reset signal	82	LCDENB	O	LCD enable signal output
33	VA0	O	Display memory address bus	83	VOE	O	Read signal for display memory
34	VA1	O	Display memory address bus	84	IOCS	I	Select internal registers
35	VA2	O	Display memory address bus	85	IOW	I	Write signal for internal register
36	VA3	O	Display memory address bus	86	IOR	I	Read signal for internal register
37	VA4	O	Display memory address bus	87	MEMCS	I	Indicate a memory cycle
38	VA5	O	Display memory address bus	88	MEMW	I	Indicate a memory write cycle
39	VA6	O	Display memory address bus	89	MEMR	I	Indicate a memory read cycle
40	VA7	O	Display memory address bus	90	READY	O	Ready signal
41	VA8	O	Display memory address bus	91	BHE	I	Vcc
42	VA9	O	Display memory address bus	92	OSC1	I	Clock signal
43	VA10	O	Display memory address bus	93	OSC2	O	Clock signal
44	VD0	I/O	Display memory data bus	94	DB0	I/O	System data bus
45	VD1	I/O	Display memory data bus	95	DB1	I/O	System data bus
46	VD2	I/O	Display memory data bus	96	DB2	I/O	System data bus
47	VD3	I/O	Display memory data bus	97	DB3	I/O	System data bus
48	VD4	I/O	Display memory data bus	98	DB4	I/O	System data bus
49	VD5	I/O	Display memory data bus	99	DB5	I/O	System data bus
50	VD6	I/O	Display memory data bus	100	DB6	I/O	System data bus

6. OPTION INSTALLATION

6-1. REAR DISPLAY

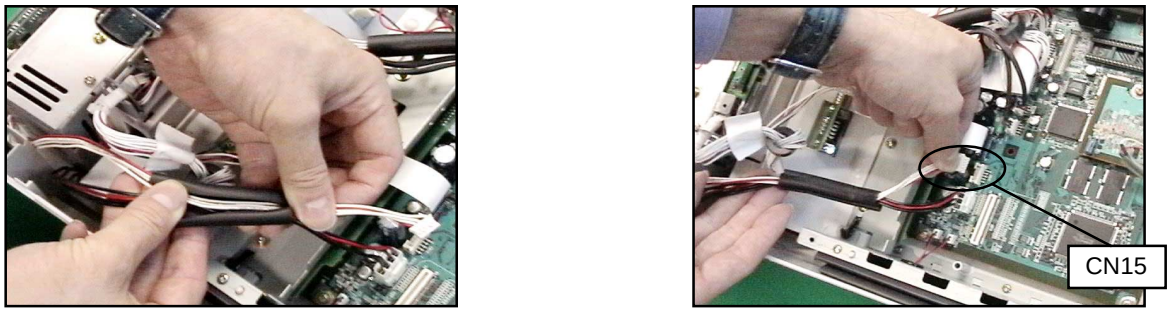
Note: The REMOTE DISPLAY and the REAR DISPLAY cannot be fixed at the same time.

1. Assemble the REAR DISPLAY.
   Note: Be careful with the direction (left/right) of the frame.



2. Remove the upper cover as shown in steps 1 to 2 of page 9.
3. Fix two screws temporarily to the POWER UNIT.
4. Attach the REAR DISPLAY and fix it with two screws.

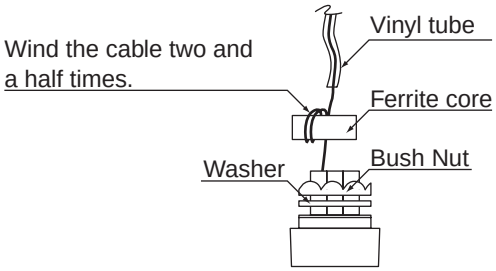
5. Let the connector through the tube and connect it to the MAIN PCB (CN15).



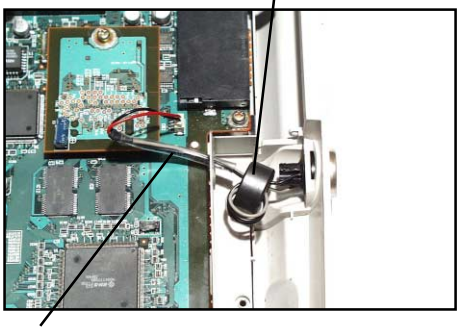
6. Fix the UPPER COVER and REAR COVER.

6-2. Dallas Key (Except for Germany)

1. Remove the upper cover as shown in steps 1 to 3 of page 9.
2. Let the Dallas key through the unit and connect it to the MAIN PCB (CN2).
   Note: Wind the cable through the Ferrite core two and a half times.



Ferrite core should be in side of lower case.

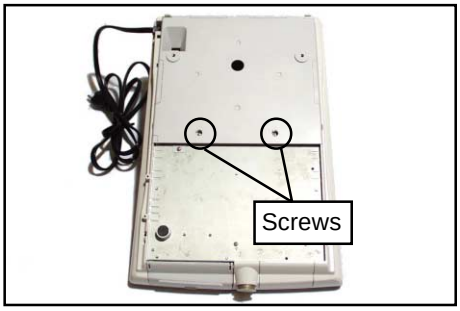


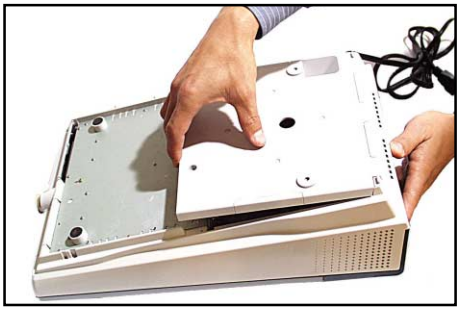
Vinyl tube: Do not put tube in the ferrite core.

3. After mounting dallas key, fix the UPPER COVER.

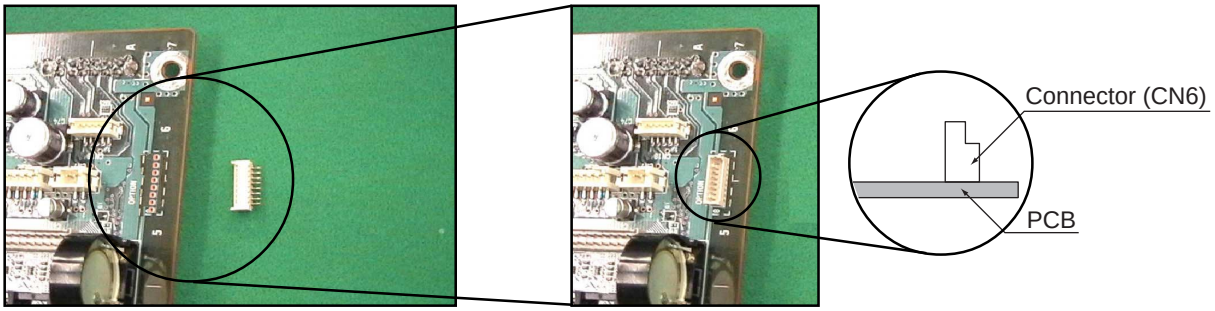
6-3. MAGNETIC CARD READER (MCR)

1. Remove two screws and the lower case.



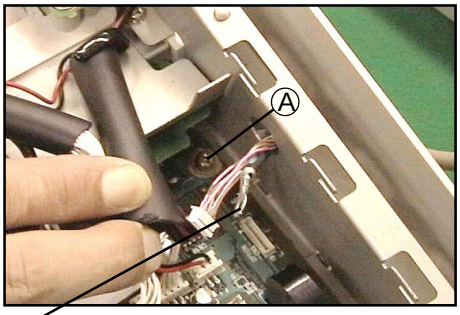


2. Remove the MAIN PCB (Remove the upper cover as shown in steps 1 to 3 of page 9).
3. Solder the connector (CN6) on the MAIN PCB.



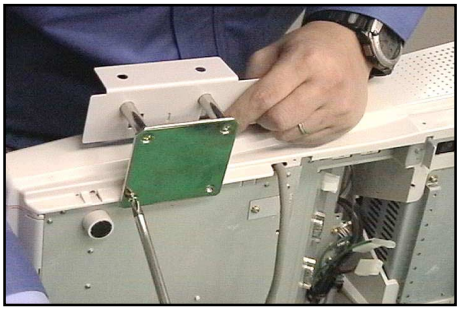
NOTE: When fixing the connecotor, be careful with its direction.

4. Fix the MAIN PCB.
5. Put the cable of the MCR into the ECR and connect it to the MAIN PCB (CN6).

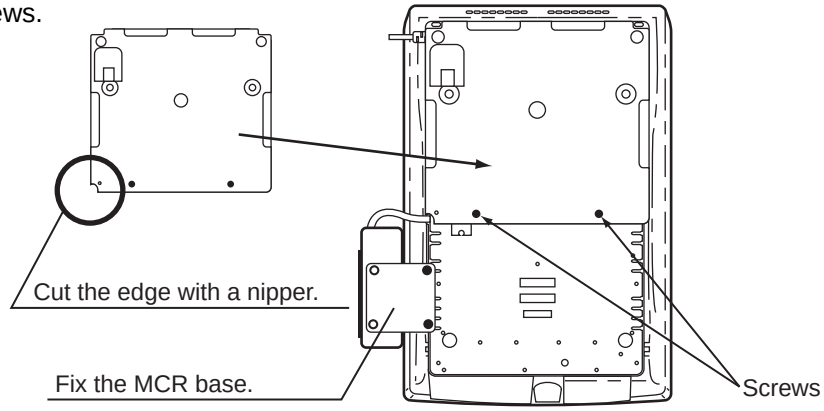


Fix the terminal to position Ⓐ

6. Fix the base of the MCR.

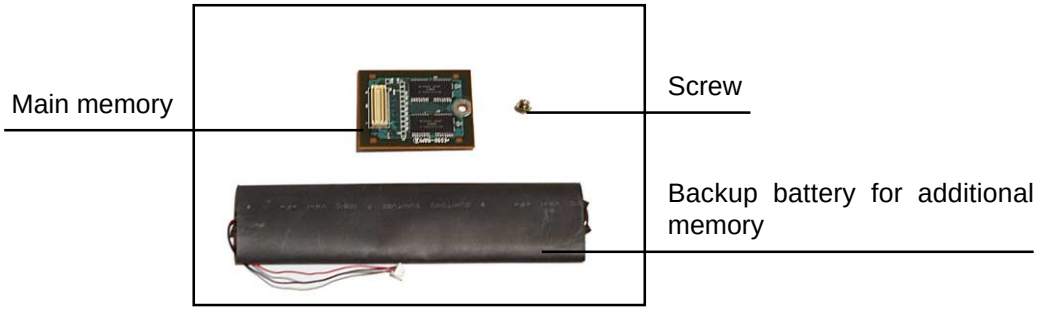


7. Cut the edge of the lower case with a nipper.
8. Fix the lower case with two screws.

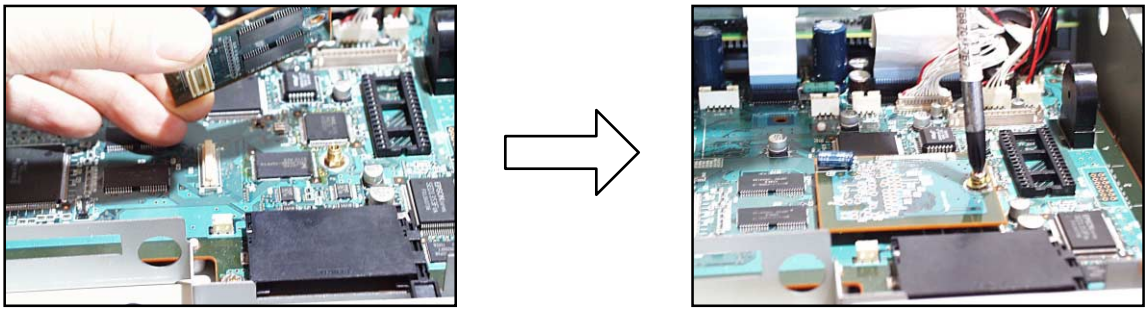


9. Fix the MCR.
10. Fix the UPPER COVER.

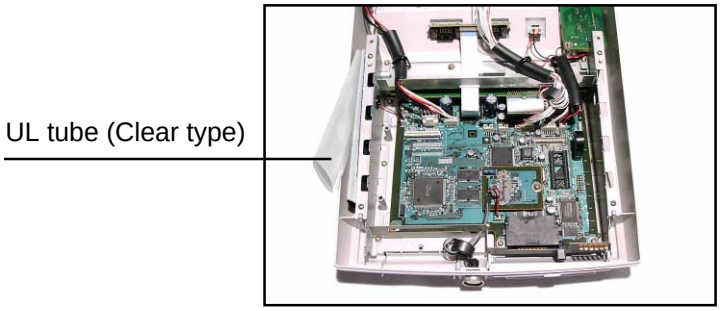
6-4. MEMORY PCB



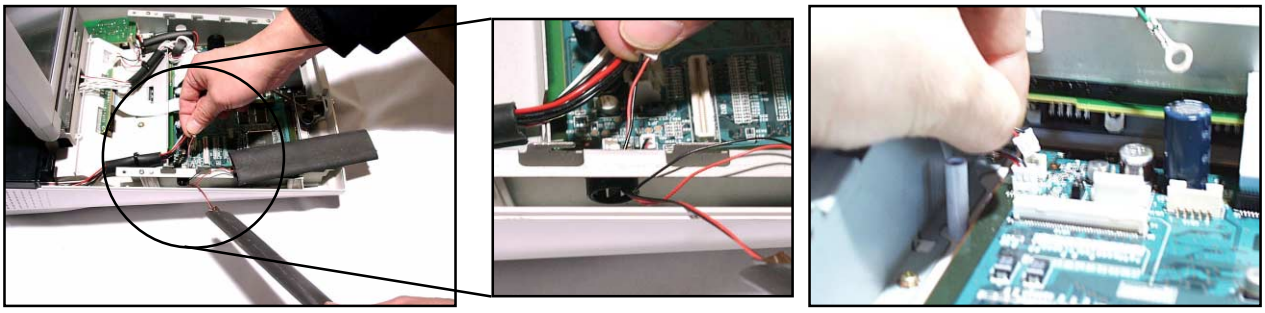
1. Remove the upper cover as shown in steps 1 to 3 of page 9.
2. Fix the additional memory to the MAIN PCB (CN3) with a screw.



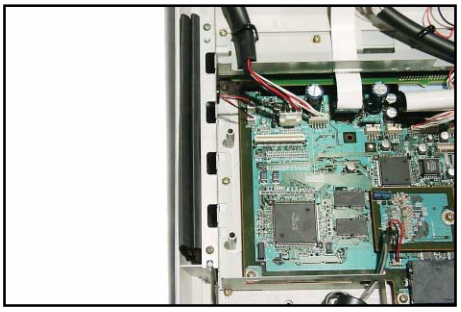
3. Remove the UL tube from the ECR.



4. Let the power cord of the BACKUP BATTERY through the hole on the side of the ECR and fix it to the MAIN PCB (CN19).



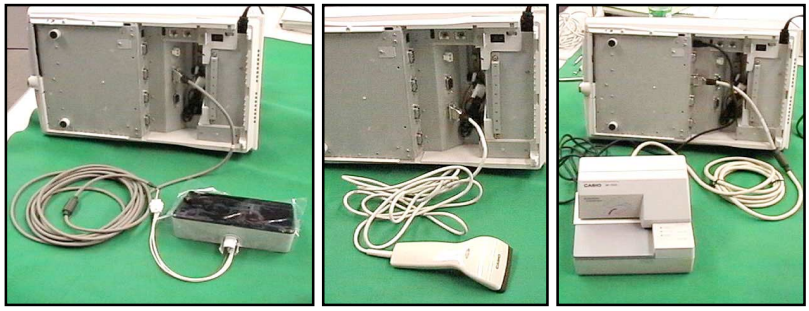
Note: Insert two BACKUP BATTERIES together.



6-5. REMOTE DISPLAY

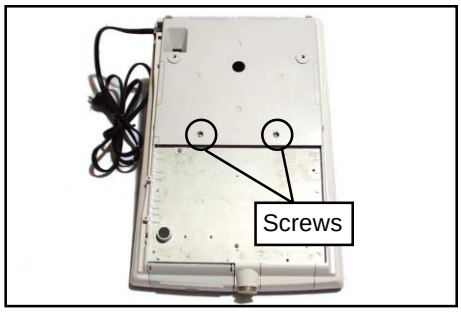
6-6. HANDY SCNNER

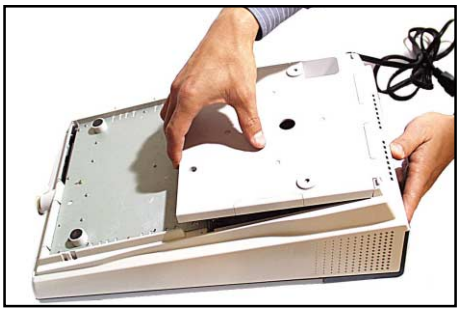
6-7. REMOTE PRINTER / SLIP PRINTER



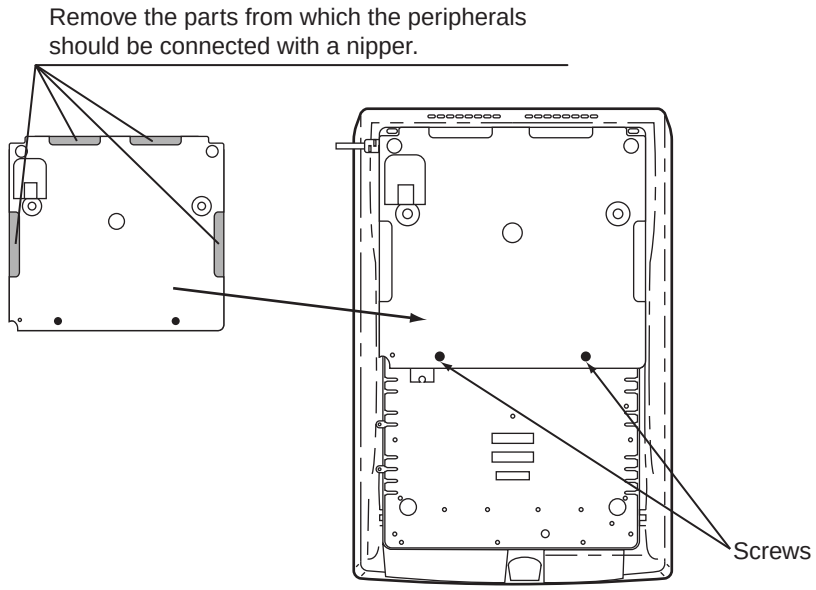
Note: The REMOTE DISPLAY and the REAR DISPLAY cannot be fixed at the same time.

1. Remove two screws and the lower case.



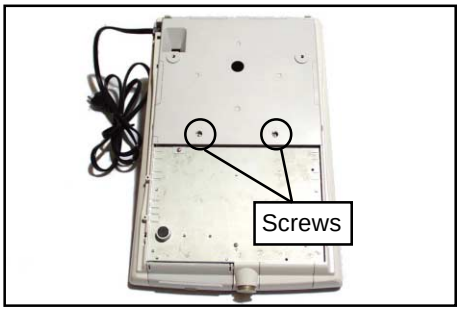


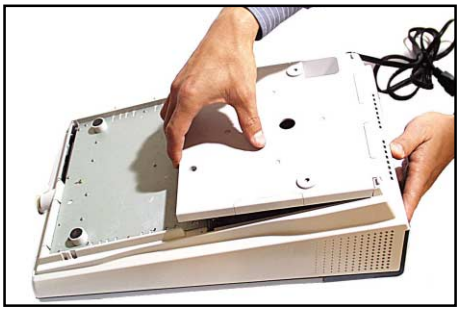
2. Connect the following peripherals to the COM ports respectively.
   REMOTE DISPLAY : COM3
   HANDY SCANNER : COM2
   REMOTE PRINTER/ : COM4, 5, 6
   SLIP PRINTER
3. Remove the parts from which the peripherals should be connected with a nipper.
4. Fix the lower case with two screws.



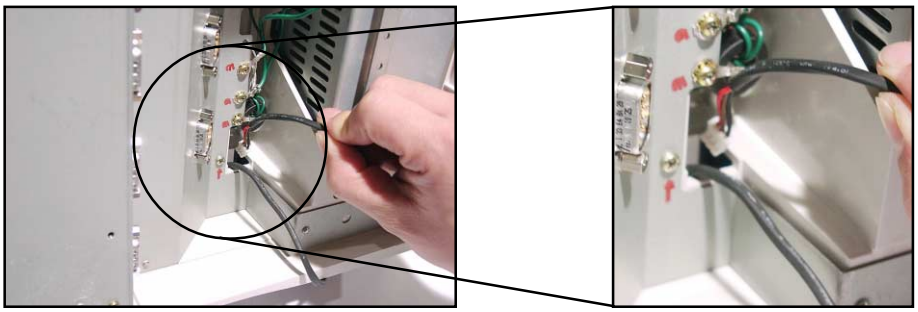
6-8. DRAWER

1. Remove the upper cover as shown in steps 1 to 3 of page 9.
2. Remove two screws and the lower case.



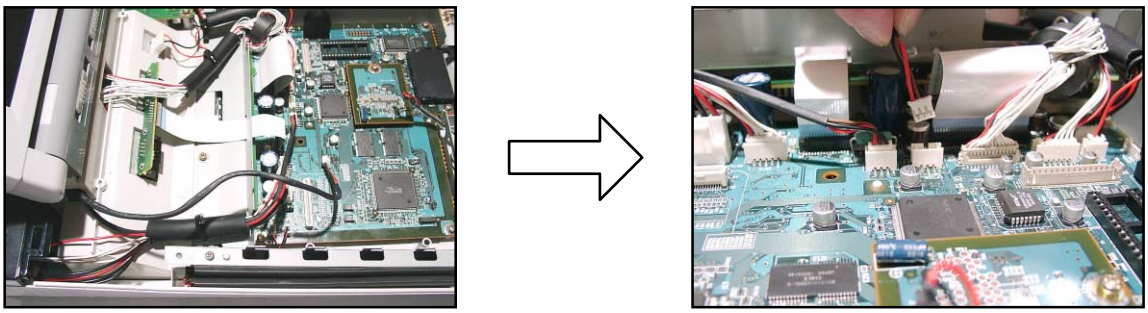


3. Let the cable through the part as shown below and put into the ECR.

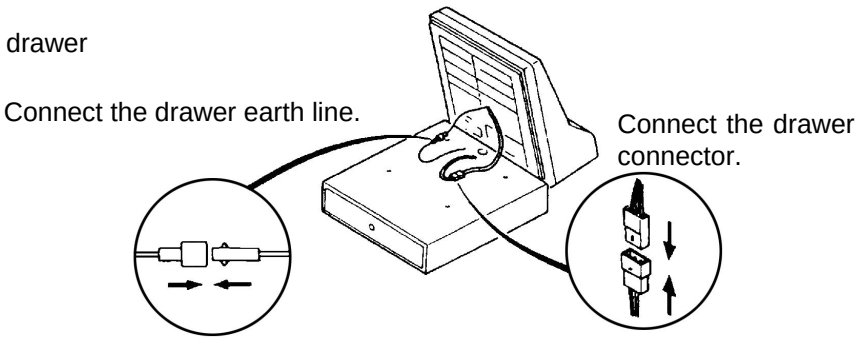


4. Put the cable into the tube and connect it to the MAIN PCB (CN11).

NOTE: CN10 for Multi Drawer



5. Fix the UPPER COVER.
6. Connect the earth line with the drawer



7. IN LINE

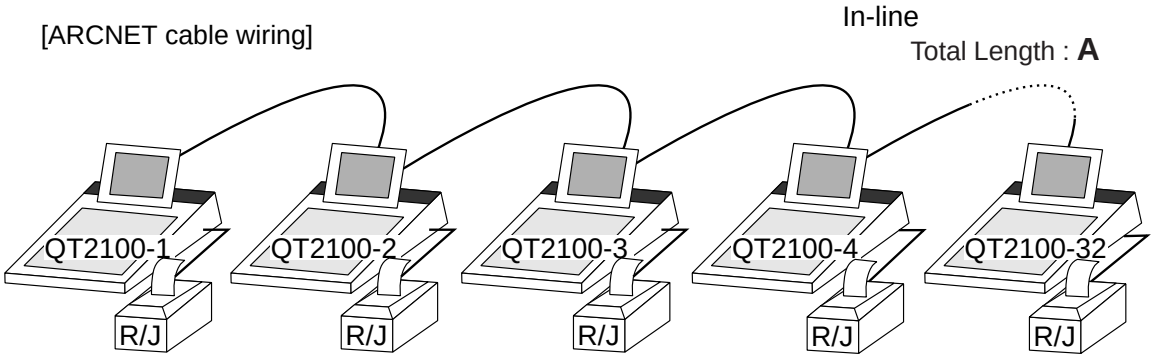
■ There are two types for IN LINE; CATEGORY5A and ARCNET.

7-1. ARCNET

① ARCNET connection diagram

The maximum ARCNET cable length and the maximum connection unit will be varied by the in-line communication speed as shown below list.

[ARCNET cable wiring]



Note: When the cluster has more than 8 QT-2100 terminals, all printer should be local printer. When the cluster has less than or equal to 8 QT-2100 terminals, remote printer is allowable.

ARCNET communication speed (Baud rate)	Maximum connection unit	Maximum cable length **A** (m)
312.5 K bps	20	430
156.25 K bps	32	890

② In line cable, Connector, and Terminater

ARCNET cable

Code No.	Parts name	Specification
1904 4023	In-line cable	IPEV-SLA0.5x1P

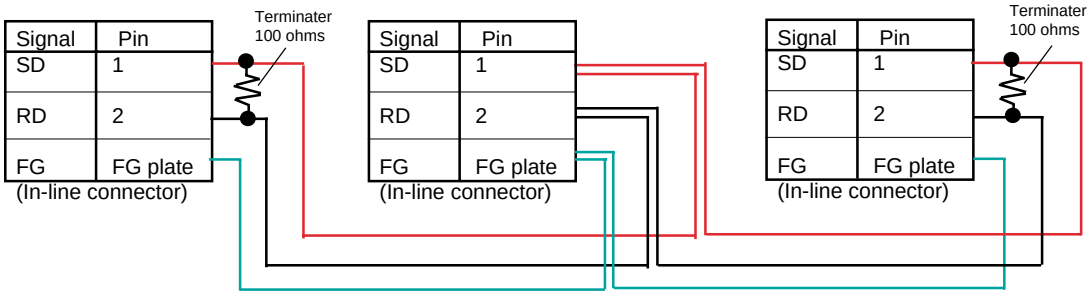
ARCNET connector(ECR side)

Code No.	Parts name	Specification
3540 3924	In-line connector kit	XLP-KIT-2

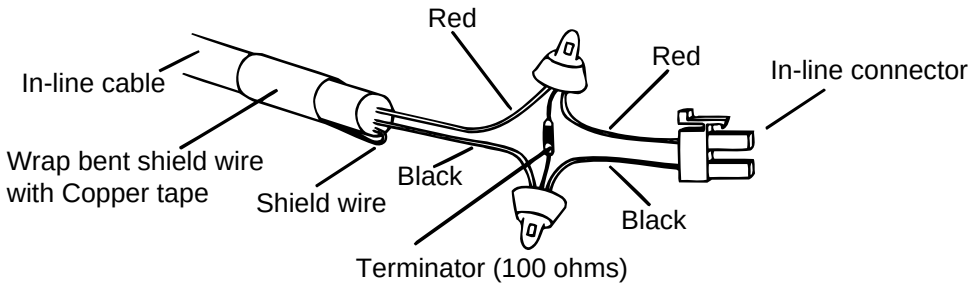
Terminater

Code No.	Parts name	Specification
2600 2516	Carbon film resistor	R-25-100-J

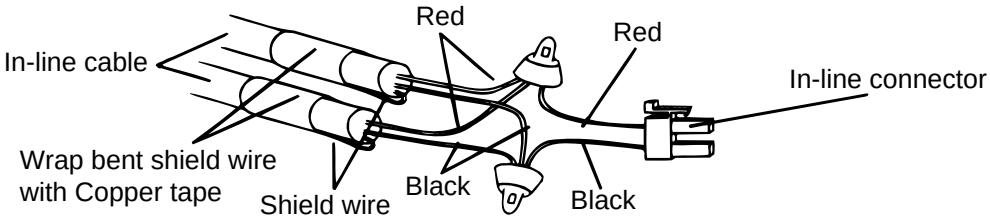
③ ARCNET Cable connection diagram



[Connection end of ECR]



[Connection between ECR and ECR]



7-2. LAN (CATEGORY5)

① Restrictions

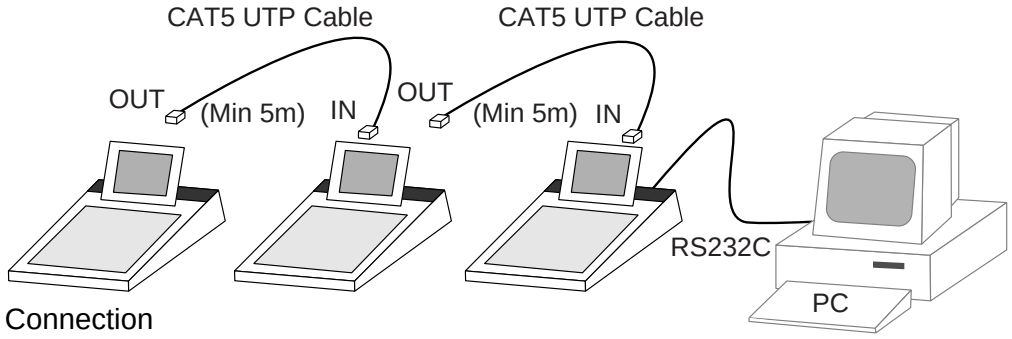
- Maximum number of units that can be connected is 32.
- HUB and rooter cannot be connected.
- With ARCNET simultaneous use impossible.
- Minimum cable length between units is 5 meters.

Maximun total length of the cable	
4 units :	450m
8 units :	420m
32 units :	230m

② APPLICATION

- Auto PGM
- Sales Data Collection
- Shared Check Tracking
- Shared Printer
- IPL

③ BLOCK DIAGRAM

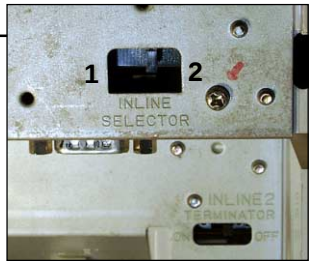


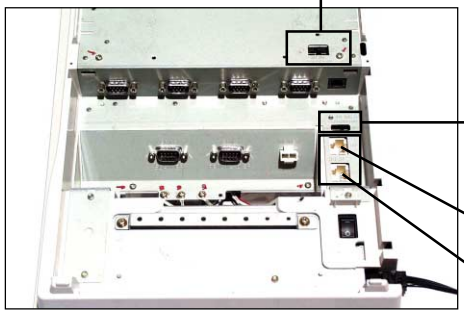
④ Connection

IN LINE selector

Position 1: ARC NET

Position 2: CATEGORY5



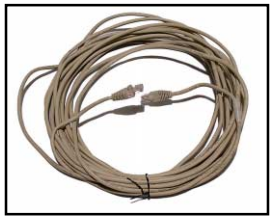


Terminator Switch

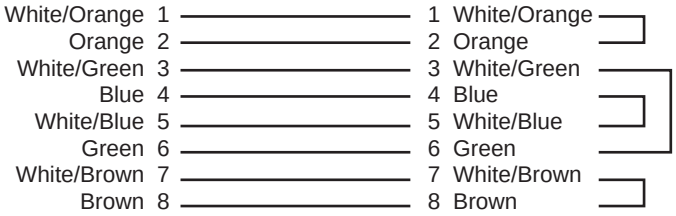
Turn on the switch of the units of both first and the last ends.

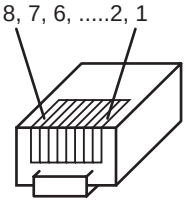
IN

OUT



LAN CABLE





NOTE:

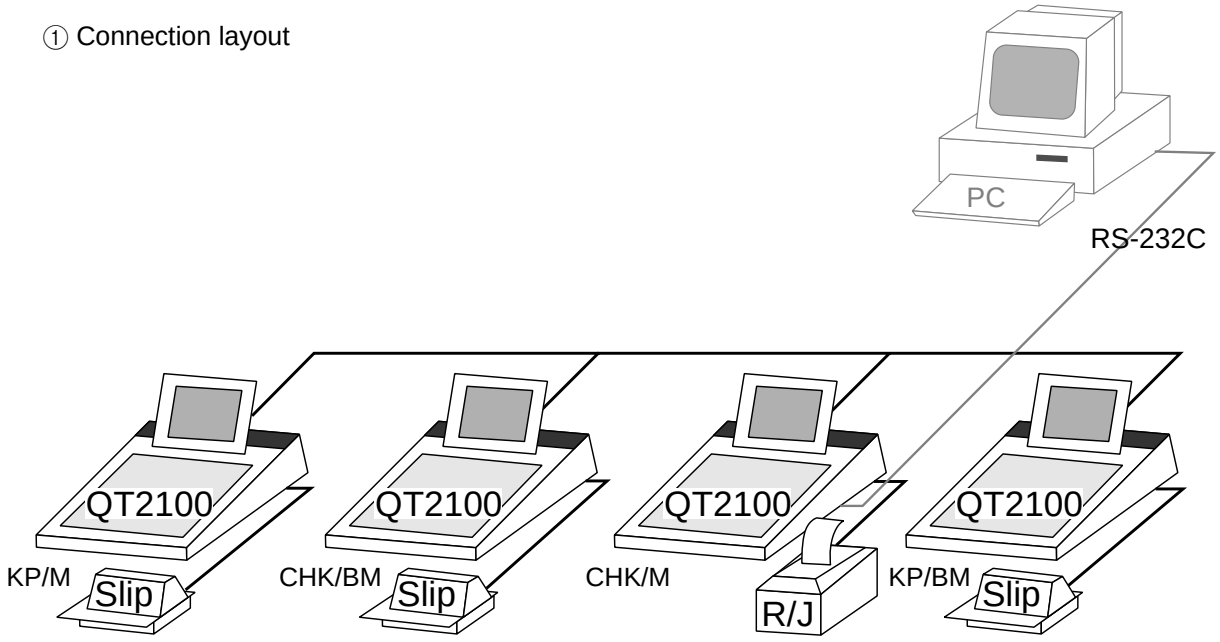
1) The power of all units which share the network must be turned on.
   If even one of them is OFF, normal communication cannot be done.
   If any of the units has a failure and its power is turned off, remove the unit from the network.
2) Communication speed of the categoly 5 is fixed 312.5kbps.

8. ON LINE

Only the RS-232C Com1 port can be connected with a modem or perssonal computer.

8-1. Direct connection to PC

① Connection layout



Using Com1 port

② PC Cable wiring

QT-2100 (Com1)

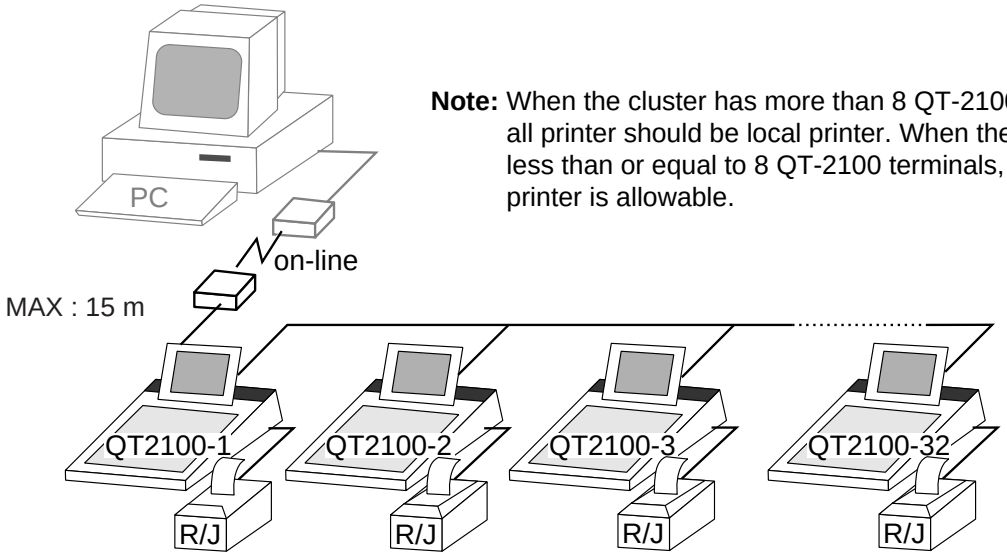
Pin No.	Signal name
3	SD/TXD
2	RD/RXD
7	RS/RTS
8	CS/CTS
1	CD/DCD
4	ER/DTR
6	DR/DSR
9	CI/RI
5	GND

PC

Pin No. (DSUB9)	Pin No. (DSUB25)	Signal name
3	2	SD
2	3	RD
7	4	RS
8	5	CS
1	8	CD
4	20	ER
6	6	DR
-	22	CI
5	7	GND

8-2. MODEM system

① Connection layout



Note: When the cluster has more than 8 QT-2100 terminals, all printer should be local printer. When the cluster has less than or equal to 8 QT-2100 terminals, remote printer is allowable.

Use Com1 port

② PC Cable wiring

QT-2100 (Com1)

Pin No.	Signal name
3	SD/TXD
2	RD/RXD
7	RS/RTS
8	CS/CTS
1	CD/DCD
4	ER/DTR
6	DR/DSR
9	CI/RI
5	GND

MODEM (DSUB25)

Pin No.	Signal name
2	SD
3	RD
4	RS
5	CS
8	CD
20	ER
6	DR
22	CI
7	GND

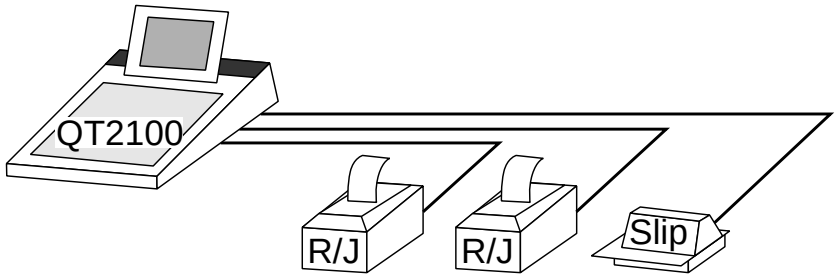
8-3. PRINTER Connection

■ Three printers can be connected to QT-2100.
Com4 ~ Com6 are used for ports.

① Connection layout

Maimum connection number : Max. 3 printer

Note:The slip printer can be connected one unit only.

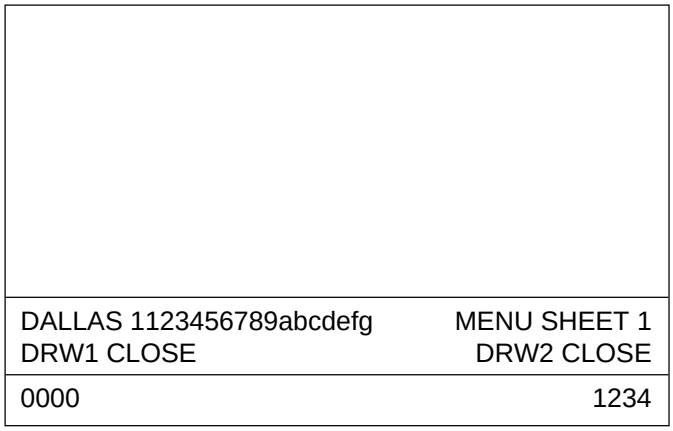


9. DIAGNOSTIC OPERATION

9-1 .To start the diagnostic operation

1. Power off.
2. While holding down the button on the upper left corner, turn the power on.
3. Release the button when the main display on.
4. Input "99990000" and press [SUB TOTAL].
5. Diagnostic program is executed.

[LCD]



9-2. Check item

The following test can be checked in the diagnostic test.

No	Device to be checked	Operation	Note	Page
1	Series test	1	Test Device : RAM, Flash, LCD, Printer, Date, Time, Drawer	40
2	RAM write/read test RAM read only test	xn011 xn111		41
3	Flash ROM check sum	n512		42
4	Flash clear & write/read test	n612		42
5	CF-CARD write/read test	n013		43
6	CF-CARD read only test	n113		43
7	CF-CARD clear test	n213		44
8	CF-CARD clear & write/read test	n313		44
9	LCD test	n021		45
10	LCD Back Light OFF test	121		45
11	Rear Display test	na22		46
12	Remote Display test	na23	Use COM3 Port	46
13	Printer test	xxxn03d	Use RS232C Port and Printer	47
14	RS232C port test	xn04d	Use loop back connector	48
15	In-line (ARCNET) test	rllmmx0a51		49
16	In-line (ARCNET) batch test	150 (Send)	250 (Receive)	50
17	Date time set test	xxxxxx0a70		51
18	Drawer open test	xn091		51
19	Buzzer test	n092		52
20	Running test	93		52
21	Key display test	94		53
22	OBR (Scanner) test	95		53
23	MCR test	96		54
24	To exit the diagnostic mode			54

9-3. Operation of each test

[1] Series test

This test will perform the following tests in series.
Printer connects to COM1.

1) RAM Write/Read
2) LCD test
3) LCD back light test
4) Printer test
5) Time and Date
6) Drawer open test

Note : Make sure to set the baud rate of the printer which is used to 9600bps.
Details refer to the page of each test.

Operation : | 1 | SUB TOTAL |

1) RAM Write/Read
2) LCD test
   If the result is OK, press 1 KEY.
   If the result is NG, press 9 KEY.

[LCD]

```
BATC H          1
STD RAM WR      OK
OPT RAM WR      OK
Please Hit key  OK-> 1   NG-> 9
```

3) LCD back light test
   This is a test for the backlight. Since the backlight is turned off, the display is difficult to see.
   If the result is OK, press 1 KEY.
   If the result is NG, press 9 KEY.

[LCD]

```
BATC H          1
STD RAM WR      OK
OPT RAM WR      OK
Please Hit key  OK-> 1   NG-> 9
LCD             OK
Please Hit key  OK-> 1   NG-> 9
```

4) Printer test
   If a printer is connected, the result is printed as shown in the right figure.

[PRINT]

```
BATC H          1
STD RAM WR      OK
OPT RAM WR      OK
LCD             OK
BACK LIGHT      OK
BBBBBBBBBBBBBBBBBBBBBBB   *8,888.88
DATE            01/12/31
TIME            23:59-30
DRW ALL         OK
END             1
```

Print Test

5) Time and Date
6) Drawer open test
   If the result is OK, press 1 KEY.
   If the result is NG, press 9 KEY.

[LCD]

```
BATC H          1
STD RAM WR      OK
OPT RAM WR      OK
Please Hit key  OK-> 1   NG-> 9
LCD
Please Hit key  OK-> 1   NG-> 9
BACK LIGHT      OK
PINTER          OK
DATE            01/12/31
TIME            23:59:30
Please Hit key  OK-> 1   NG-> 9
DRW ALL         OK
END             1
```

Note : In case of error, the following error message will be printed.
"STD RAM WT NG....." = RAM write error
"FLASH WT NG....." = FLASH write error

[2] RAM write/read test and read only test

These tests will check the write/read test and the read only test for RAM.

Operation : | x | n | w | 1 | 1 | SUBTOTAL |

x : Type of RAM
1 = STD RAM
2 = Option RAM
0 or Space = STD and Option RAM

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

w : 0 = Write/Read
1 = Read only

Note : Perform the write test, before start of read only test.

[LCD write/read]

```
RAM            xn011
STD RAM WR      OK
OPT RAM WR      OK
END            xn011
```

```
RAM            xn011
STD RAM WR      OK
OPT RAM WR      NG 0
END            xn011
```

[LCD read only]

```
RAM            xn011
STD RAM RD      OK
OPT RAM RD      OK
END            xn011
```

When the both RAM are selected.

```
RAM            xn011
STD RAM RD      OK
OPT RAM RD      NG 0
END            xn011
```

When the both RAM are selected, and option RAM nothing.

Note : In case of error, the error address will be displayed.

[PRINT]

```
12345678901234567890123456789012345678901234567890

RAM            xn011
STD RAM WR      OK
OPT RAM WR      OK
END            xn011
```

[PRINT]

```
12345678901234567890123456789012345678901234567890

RAM            xn011
STD RAM RD      OK
OPT RAM RD      OK
END            xn011
```

Note : In case of error, the error address will be printed.

[3] Flash ROM check sum

The check sum test for FLASH ROM is performed.
The area which can be checked is only the code area (from address of 0x8000 to little over than 2.5M).
The area range depends on the code capacity.

Operation : | n | | 5 | | 1 | | 2 | | SUBTOTAL |

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

[LCD]

```
FLASH            512
FLASH CHK SUN    OK
END              512
```

[PRINT]

```
FLASH            512
FLASH CHK SUN    OK
END              512
```

Note : Displays only OK or NG, displays no address
Do not perform the Flash clear test before this test.

[4] Flash clear & write/ read test

The CLEAR & WRITE/READ test for FLASH MEMORY is performed.
After deleting the memory by CLEAR, WRITE/READ test is performed.

NOTE: IPL becomes necessary again after the test since this test cannot make a backup copy of the program.
The program is also deleted if the memory inside the FLASH is deleted by the CLEAR test.

Operation : | n | | 6 | | 1 | | 2 | | SUBTOTAL |

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

The counter is displayed which indicates that the FLASH test is in progress.

[LCD]

```
FLASH            612
FLASH CLR&WR     OK
END              612
```

[PRINT]

```
FLASH            612
FLASH CLR&WR     OK
END              612
```

NOTE: NG and the address are displayed if WRITE cannot be done normally.
NG and the address are printed if WRITE cannot be done normally.

[5] CF-CARD write/read test

This test will check the write/read test for CF-CARD.
Perform the CF-CARD clear test, before start of this test.

Operation : | p | n | 0 | 1 | 3 | SUBTOTAL |

p : Select PCMCIA SLOT
0 = CF
1 = PCMCIA

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

[LCD]

```
CF-CARD     pn013
CF WR       OK
END         pn013
```

[PRINT]

```
CF-CARD     pn013
CF WR       OK
END         pn013
```

Note : In case of error, the error address will be displayed/printed.

[6] CF-CARD read only test

This test will check the read test for CF-CARD.
Perform the CF-CARD write test, before start of this test.

Operation : | p | n | 1 | 1 | 3 | SUBTOTAL |

p : Select PCMCIA SLOT
0 = CF
1 = PCMCIA

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

[LCD]

```
CF-CARD     pn113
CF RD       OK
END         pn113
```

[PRINT]

```
CF-CARD     pn113
CF RD       OK
END         pn113
```

Note : In case of error, the error address will be displayed/printed.

[7] CF-CARD clear test

This test wiil clear the memory for CF-CARD.
In the case that data of CF-CARD is necessary, data should save by PC.

Operation : | p | n | 2 | 1 | 3 | SUBTOTAL |

p : Select PCMCIA SLOT
0 = CF
1 = PCMCIA

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

[LCD]

CF-CARD	pn213
CF CLR	OK
END	pn013

[PRINT]

CF-CARD	pn213
CF CLR	OK
END	pn013

Note : In case of error, the error address will be displayed/printed.

[8] CF-CARD clear & write/read test

This test will perform the write/read test after clear memory of CF-CARD.
In the case that data of CF-CARD is necessary, data should save the by the PC.

Operation : | p | n | 3 | 1 | 3 | SUBTOTAL |

p : Select PCMCIA SLOT
0 = CF
1 = PCMCIA
n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

[LCD]

CF-CARD	pn313
CF CLR&WR	OK
END	pn313

[PRINT]

CF-CARD	pn313
CF CLR&WR	OK
END	pn313

Note : In case of error, the error address will be displayed/printed.

[9] LCD test

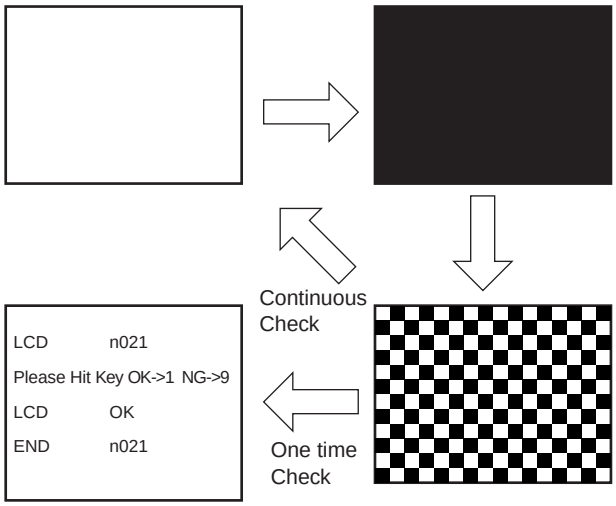
This test will check the LCD.

Operation : | n | 0 | 2 | 1 | SUBTOTAL |

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

Note : When the one time check is selected, the following message will appear.
"Please Hit key OK -> 1 NG -> 9"
Press "1" key or "9" key.

[LCD]



[PRINT]

```
LCD              n021
LCD      OK
END              n021
```

[10] LCD back light OFF test

This test will turn off the back light for LCD.

Operation : | 1 | 2 | 1 | SUBTOTAL |

Note : After this operation has been entered, the following message will appear.
"Please Hit Key OK -> 1 NG -> 9"
Press "1" key or "9" key.
Since the backlight is turned off in the backlight test, characters on the display are difficult to see.

[LCD]

```
BACK LIGHT       121
BACK LIGHT       OK
END              121
```

[PRINT]

```
12345678901234567890123456789012345678901234567890

BACK LIGHT       121
BACK LIGHT       OK
END              121
```

[11] Rear Display test

This test will check the rear display.

Operation : [n] [a] [2] [2] [SUBTOTAL]

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)
a : 0 = displays test characters
1 = displays all dots

Note : When the one time check is selected, the following message will appear.
"Please Hit key OK -> 1 NG -> 9"
Press "1" key or "9" key.

[LCD]

```
READ DISP          na22
Please Hit Key OK->1  NG->9
READ DISP          OK
END                na22
```

(One time check)

[PRINT]

```
READ DISP          na22
READ DISP          OK
END                na22
```

(One time check)

[REAR DISPLAY]

```
1234567890ABCDEFGHIJ
KLMNOPQRSTUVWXYZabcd
```

Note : One time check = Display remains like the figure.
Continuous check = Display scrolls.

[12] Remote Display test

This test will Check the remote display. Remote display cable connects to COM3.

Operation : [n] [a] [2] [3] [SUBTOTAL]

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)
a : 0 = displays test characters
1 = displays all dots

Note : When the one time check is selected, the following message will appear.
"Please Hit key OK -> 1 NG -> 9"
Press "1" key or "9" key.

[LCD]

```
REMOTE DISP        na23
Please Hit Key OK->1  NG->9
REMOTE DISP        OK
END                na23
```

(One time check)

[PRINT]

```
REMOTE DISP        na23
REMOTE DISP        OK
END                na23
```

(One time check)

[REMOTE DISPLAY]

```
1234567890ABCDEFGHIJ
KLMNOPQRSTUVWXYZabcd
```

Note :One time check = Remote Display remains like the figure, Continuous check = Remote Display scrolls.

[13] Printer test

This test will check the print test for printer.

Operation : | x1 | x2 | x3 | n | 0 | 3 | d | SUBTOTAL |

X1 : Display test pattern
0 = A pattern 1 = B pattern

X2 : Port selection
1 = COM1 2 = COM2 3 = COM3 4 = COM4
5 = COM5 6 = COM6

X3 : Baud rate selection
1 = 4800 bps 2 = 9600 bps 3 = 19.2 kbps

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

d : Printer type selection
1 = RJ 2 = SLIP

[PRINTER SPEC]

		19.2 kbps	9600 bps	4800 bps
SLIP	SP-1300	NG	OK	OK
RJ	UP250/350	OK	OK	OK
	SA3015	NG	OK	OK
	TM-U300	NG	OK	OK
	IDP-3541	NG	OK	OK
	CBM-231	OK	OK	OK

[LCD]

(When the RJ printer is selected)

```
PRT          xxxn03d
END          xxxn03d
```

Note : The following error the printer without being connected.

```
NON PRINTER ERR
```

[PRINT]

Note : Printing pattern is the following 2types.

```
12345678901234567890123456789012345678901234567890

BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
```

A Pattern

```
12345678901234567890123456789012345678901234567890

BBBBBBBBBBBBBBBBBBBB          *8,888.88
```

B Pattern

Note : SLIP = 35 character
RJ = 40 character

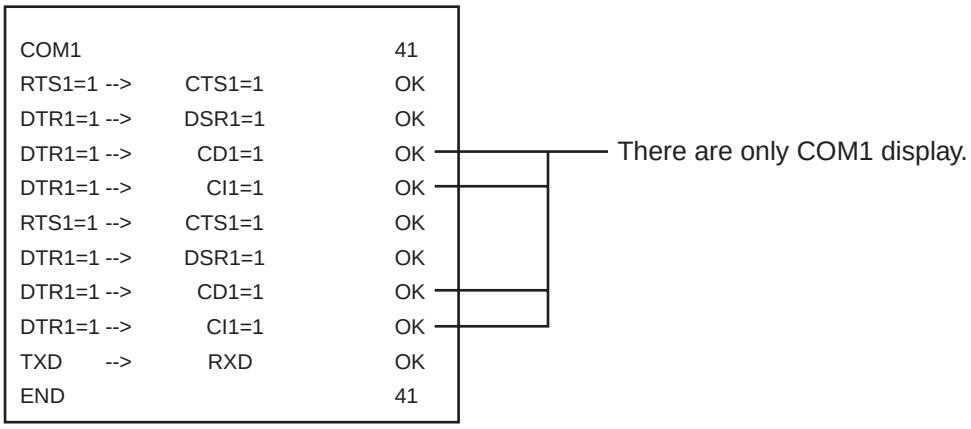
[14] RS232C port test

This test will check the RS232C port. Connect the loop back connector before this test.

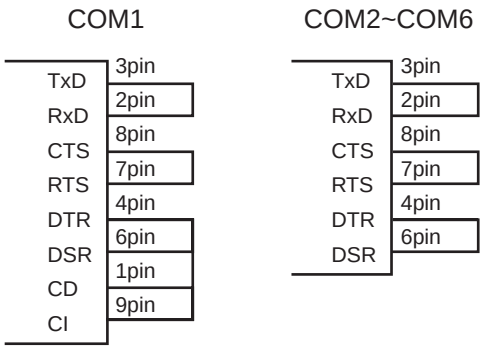
Operation : | x | n | 0 | 4 | d | SUBTOTAL |

x : Baud rate selection
1 = 4800 bps 2 = 9600 bps 3 = 19.2 kbps 7 = 115 kbps (com1 only)
n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)
d : Port selection
1 = COM1 2 = COM2 3 = COM3 4 = COM4
5 = COM5 6 = COM6

[LCD]
(COM1 test)

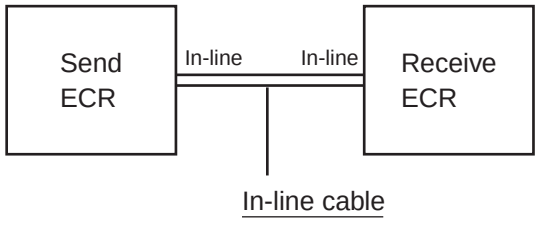


[LOOP BACK CONNECTOR]



[15] In-line test (ARCNET and Category 5)

This test will check the In-line (ARCNET) function. This test needs the reception machine as show below:



Operation : | r | l | l | m | m | x | 0 | a | 5 | 1 | SUBTOTAL |

r : Retry number and should be within the range of 0 to 9.
If input no number or 0, the test is 5 times.
This command is eftective only mode 1.

ll : The other machine ID number

mm : The machine ID number

x : Baud rate selection
0 = 156 kbps 1 = 312 kbps

a : Mode selection
1 = Send mode 1 2 = Reception mode 1
3 = Send mode 2 3 = Reception mode 2

Note1 : To stop the test, press "Esc" key.

Note2 : The send packet data format is as follows:

SID	DID	LEN	Data 00h~FFh, 00h, 01h~FBh	LRC

Total data 508 byte

Note3 : In case the data is correctly,

[Mode 1]

Reception mode 1 : Check the recveive data, then, snd the reverse receive data (FBh-01 h,00h,FFh-00h) back to the send machine.

Send mode 1: Then, after checking the reverse data, send the test data again.

[Mode 2]

Reception mode 2 : Check the receive data only.

Send mode 2 : Send the test data each one second continuously.

Note4 : Retry opeation (Reception mode 1 or Send mode 1 is selected)

Reception side : Until "r" times continuous error, retry the reception. After that, retrun to waiting condition.

Send side : If there no answer from reception machine, the machine will wait after one second, retry "r" times send opertation. If there no answer again, the machine send the error data.

[LCD]

ARCNET	rllmmx0a51
END	rllmmx0a51

[PRINT]

ARCNET	rllmmx0a51
END	rllmmx0a51

Error list

ARCNET RETRY OVER = Selecting retry number was excessed.
ARCNET BLK ERR = Block No. is not same No. between send and reception.
ARCNET DATA ERR = Data is not same between send and reception.
ARCNET LENG ERR = Data length is not same between send and reception.
ARCNET TIMEOUT = Time out error during communication time or starting time.
ARCNET OPEN ERR = Failuer of ARCNET initialization.

[16] In-line batch test (ARCNET and Category 5)

This test is same as "[13] In-line (ARCNET) test". But all commands are fixed.

Operation : Send side

1	5	0	SUBTOTAL

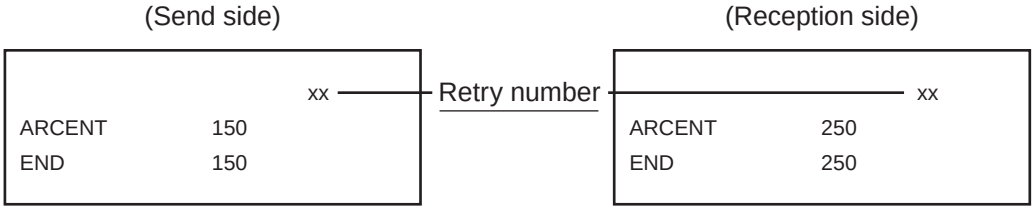
Fixed command : The other machine ID number = 01
The machine ID number = 02
Mode selection = Send mode 1
Baud rateselection = 312 kbps
Retry number = 5 times

Reception side

2	5	0	SUBTOTAL

Fixed command : The other machine ID number = 02
The machine ID number = 01
Mode selection = Send mode 1
Baud rateselection = 312 kbps
Retry number = 5 times

[LCD]



[17] Date time set test

The machine will set the time and the date.
Operation : Set the date and the time.

x1	x2	x3	x4	x5	x6	0	a	7	0	SUBTOTAL

a : 0 = Time set (x1 x2 : Hour, x3 x4 : Minute, x5 x6 : Second)
1 = Date set (x1 x2 :Year, x3 x4 : Month, x5 x6 : Day)

Note 1 : Run number is only one time.

Display the date and the time.

7	0	SUBTOTAL

Note 2 : To stop the operation, press "Esc" key.

[LCD] **[PRINT]**

(Display the date and the time)

DATE/TIME	70
DATE/TIME	Y/MM/DD HH:MM-SS
END	70

DATE/TIME	70
DATE/TIME	Y/MM/DD HH:MM-SS
END	70

[18] Drawer open check

This test will check the drawer open function.

Operation :

x	n	0	9	1	SUBTOTAL

x : 0 = Open every drawer
1 = Open drawer 1
2 = Open drawer 2
n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

Note1 : When the one time check is selected, the following message will appear.
"Please Hit key OK -> 1 NG -> 9"
Press "1" key or "9" key.

Note2 : When the continuous check is selected, the drawer will open with 1 time in 2 seconds.

[LCD] **[PRINT]**

(One time check)

DRW	xn091
DRW1	OK
END	xn091

DRW	xn091
DRW1	OK
END	xn091

[19] Buzzer test

This test will check the buzzer function.

Operation : [n] [0] [9] [2] [SUBTOTAL]

n : 0 = One time check
Not 0 = Continuous check (To stop the test, press "Esc" key)

[LCD]

```
BUZZ          n092
END           n092
```

[PRINT]

```
BUZZ          n092
END           n092
```

[20] Running test

This test is rinning test for ECR.
Printer cable connects to COM6 before this test.
The following process is a cycle of one testing. This process repeats it 15 times a minute.

Display → Print 1 line → Display → Print 1 line → Open drawer 1 time

Operation : [9] [3] [SUBTOTAL]

Note : To stop the test, press "Esc" key.

[LCD]

```
BBBBBBBBBBBBBBB     *88.88
BBBBBBBBBBBBBBB     *88.88
```

[PRINT]

```
BBBBBBBBBBBBBBB     *88.88
BBBBBBBBBBBBBBB     *88.88
```

[REAR DISPLAY]

```
CASIO QT2100
QA TEMP TEST MODE
```

[21] Key display test

The display shows pressed button number when the key switch function correctly.

Operation : 9 4 SUBTOTAL

Note : To stop the test, press "Esc" key.

[LCD]

```
KEY          94
KEY#mmm
END          94
```

#mmm = =Key code

[LOCATION OF THE KEY CODE]

14	28	42	56	70	84	98	112	126	140	154	168
13	27	41	55	69	83	97	111	125	139	153	167
12	26	40	54	68	82	96	110	124	138	152	166
11	25	39	53	67	81	95	109	123	137	151	165
10	24	38	52	66	80	94	108	122	136	150	164
9	23	37	51	65	79	93	107	121	135	149	163
8	22	36	50	64	78	92	106	120	134	148	162
7	21	35	49	63	77	91	105	119	133	147	161
6	20	34	48	62	76	90	104	118	132	146	160
5	19	33	47	61	75	89	103	117	131	145	159
4	18	32	46	60	74	88	102	116	130	144	158
3	17	31	45	59	73	87	101	115	129	143	157
2	16	30	44	58	72	86	100	114	128	142	156
1	15	29	43	57	71	85	99	113	127	141	155

◀ (ESC)

[22] OBR (Scanner) test

This test will check the OBR function. The test checks the fixed data and read data comparison.
The fixed data is "49400250".
Scanner cable connects to COM2 before this test.

Operation : 9 5 SUBTOTAL

Note : To stop the test, press "Esc" key.

[LCD]

```
OBR          95
OBR          OK
OBR ERR      ********************
ESC
END          95
```

(1)

(2)

[PRINT]

```
OBR          95
OBR          OK
OBR ERR      ********************
ESC
END          95
```

(1) When the read data is correct.
(2) When the read data is incorrect, bar code will be displayed.

[23] MCR test

The test checks the fixed data and read data comparison.

Operation : | 9 | | 6 | | SUBTOTAL |

Note1 : To stop the test, press "Esc" key.

[LCD]

```
MCR          96
MCR1         OK
MCR2         OK
END          96
```

[PRINT]

```
MCR          96
MCR1         OK
MCR2         OK
END          96
```

Note1 : MCRI = Trock1
MCR2 = Trock2

[ERROR DISPLAY]

```
MCR1 ERR          **************************
******************************
```

Read data

```
MCR1 ERR          **************************
******************************
```

(When the trock1 data is incorrect)

(When the trock2 data is incorrect)

Note2 : In case of error, the read data is displayed.

[24] To exit the diagnostic mode

To escape the diagnostic mode, execute INITIALIZE (MAC) operation.

10. ERROR CODE LIST

10-1. Error messages

When an error occurs on a QT-2100 terminal, a buzzer sounds and the appropriate error message appears on the main display, indicating what action to take.
The following table lists the error messages and describes the action to take.

Prompt message	Meaning
Operation mistake	Operation error
E001 Wrong Mode.	Check tracking (Open mode error)
E003 Wrong operator.	Error clerk/Error clerk in CHK tracking
E005 Insufficient memory.	Memory allocation over
E011 Close the drawer.	Drawer compulsory
E016 Change back to REG mode.	Prohibit plural operation in RF mode
E017 Enter Check/TBL number.	Check#compulsory
E018 Enter Table No.	Table# compulsory
E019 Enter Number of covers.	Cover compulsory
E020 Enter Seat number.	Seat number compulsory
E023 Stock running short.	Alarm when any item drops below its programmed minimum stock quantity during registration.
E024 No stock is available.	Error when actual stock value for a registration items is a negative value.
E026 Stay down compulsory ERR. Enter Item(s).	Stay down compulsory
E028 Not found PLU or C/D is mismatch.	Scanning PLU is not found or OBR code is mismatched.
E029 No registration is possible while you are in the tender operation.	Attempted registration whilst pallial tender operation is being done.
E031 Press ST key before Finalization.	ST compulsory
E033 Enter tendered amount	Amount tender compulsory
E035 Change amount exceeds the limit.	Change amount exceeds the limit.
E036 Remove money from the drawer.	Contents of the drawer exceed the programmed limit –Sentinel function.
E037 Digit or Amount Limitation Over	H.D L., H.A.L.O error
E038 Perform Money Declaration	Money declaration compulsory
E040 Issue Guest Receipt .	Guest receipt compulsory
E041 Print Validation.	Validation compulsory
E044 Print Cheque.	CHK-PRT compulsory
E045 Print Check-Endorsement	CHK-END compulsory
E046 REG Buffer Full. Please Finalize or NB.	Registration buffer full
E047 Print bill.	Slip compulsory
E048 Insert Slip Paper and retry.	Alarm when no paper is inserted in the Slip.
E049 CHECK memory full	CHK tracking index full/near end
E050 Detail memory full.	CHK tracking memory full/near end
E051 CHK/TBL No. is occupied.	Attempt is made to use the New Check key to open a new check using a number that is already used for an existing check tracking memory.
E052 CHK/TBL No. is busy.	Attempt to use the same check number whilst the specified number is being used in the other terminal.
E053 CHK/TBL No. is not opened.	CHK# not found

Prompt message	Meaning
E054 Out of CHK/TBL No. Range	CHK# range over
E056 Store range full.	All check # are occupied in range.
E057 No item exists in detail.	Round Repeat cannot be found in detail.
E058 Enter post entry item.	Post Entry item exists in detail.
E059 Press Eat-in or Take-out key.	Press Eat-in or Take-out key.
********** E060 Printer offline	Printer offline. "****" means ECR logical ID and printer number.
********** E061 Printer error ********** E061 Printer error YES : Retry to print NO : Show on the screen ESC : Discard data	Printer downed. "****" means ECR logical ID and printer number.
********** E062 Printer paper end ********** E062 Printer paper end YES : Retry to print NO : Show on the screen ESC : Discard data	Paper near-end/end "****" means ECR logical ID and printer number.
E064 Printer buffer full YES : Retry to print NO : Show on the screen ESC : Discard data	Print buffer full at sender side
********** E070 Terminal out of action. Cannot print.	Down at target ECR which has printer "****" means ECR logical ID and printer number.
********** E071 Target terminal printer BF full. YES : Retry to print NO : Show on the screen ESC : Discard data	Printer buffer full at target ECR which has printer "****" means ECR logical ID and printer number.
********** E072 Target printer terminal is busy.	Busy at target ECR which has printer "****" means ECR logical ID and printer number.
********** E073 Your receipt/order may not be issued.	Time out at ECR which has printer "****" means ECR logical ID and printer number.
********** E073 Your receipt/order may not be issued. YES : Retry to print NO : Show on the screen ESC : Discard data	Time out at ECR which has printer "****" means ECR logical ID.
E075 Negative Balance. Cannot be finalized.	Attempted finalization when balance is less than zero.
E080 Electronic Jourual Full Please clear E-jourual. E082 ***** Illegal Data *****	Electronic journal full Illegal Electronic journal data
E083 Cannot create E-jourual. Check flash memory.	Electronic journal file cannot be created.

Prompt message	Meaning
E083 Cannot create Electronic jourual file. Check flash memory.	Electronic journal file cannot be created.
********** E105 Check/TBL Tracking Master down. Please call Manager. YES : Retry for connection. NO : Remove it from system.	CHK master down "****" means ECR logical ID.
********** E106 Check/TBL Tracking Backup master down. Please call Manager. YES : Retry for cennection . NO : Remove it from system.	CHK BM down "****" means ECR logical ID.
********** E107 Both Master&Backup master down. CHK/TBL tracking or Clerk interrupt is not available.	CHK M/BM down "****" means ECR logical ID.
********** E108 CHK/TBL Master is removed from system.	Master down then take it off from system "****" means ECR logical ID.
********** E109 CHK/TBL Backup master is removed from system.	Backup master down then take it off from system "****" means ECR logical ID.
E110 CHK data mismatch between Master and Backup master.	Data mismatch has occurred.
E130 Middle of Pick up or Loan Press Cancel Key.	During picking up
E131 Middle of <Bill Copy> Press Cancel Key.	During Bill copy
E133 Middle of <Media Change> Press Cancel Key.	Dutrng Media CHG
E134 Middle of Clerk Transfer Press ESC Key.	During CLK Trans
E136 Middle of <Separate Check> Press ESC key. E139 Not allowed to be negative by Minus/Coupon key.	During SEP CHK Credit balance error
E140 Wrong menu.	This sheet holder is prohibited by PGM.
E141 Press <TRAY TOTAL> twice before finalization.	This sheet holder is prohibited by PGM.
E145 Arrangement syntax error.	Arrangement syntax error.
E150 Incorrect value entry.	Incorrect entry for PGM.
E151 Incorrect key Pressed.	Linking is incorrect.
E152 PGM File or Memory number does not Exist.	No such file, no such record.
E164 Employee No. is not Found in the Employee File.	Employee No. is not set in the Employee File.
E165 Employee No. is not Clocking-in.	Employee has not done CLOCK-IN operation yet.
E166 Employee No. is Occupied	Employee who has done CLOCK-IN operation attempts to operate CLOCK-IN again.
E167 Incorrect JOB coad	Employee attempts to operate CLOCK-IN with incorrect JOB code.

Prompt message	Meaning
E168 Your Operation is out of Schedule. Please Call Manager.	Employees operate CLOCK-OUT in not allowance time.
E169 Work Hours Exceeded. Please Call Manager.	Overtime work.
E170 No Shift Reminds in the Schedule. You cannnot Clock-in.	There is no empty shift left.
E171 Please Break-out and Retry.	Employee attempts to operate CLOCK-OUT whilst he/she is in a break time.
E172 Break Hours Exceeded. Please call Manager.	Break hours are exceeded.
E173 This employee is at work now.	Employee is at work without break,
E174 This employee is taking a break now.	Employee who has not done BREAK-OUT operation attempts to operate BREAK-IN.
********** E175 Please Clock-in/Break-out before you sign on. or Please Call Mamager.	Sign on after you clock-in or berak-out.
E176 You cannot Clock-in. Pleaee reset Employee Report.	Employee Report.
E177 Time&Attendance Data Communication Error. Please Call Manager.	Time&Attendance Data communication error. IDC FILE (1) memory is full of items.
E180 IDC FILE (1) memory full. Please Clear IDC data.	IDC FILE (2) memory is full of items.
E181 IDC FILE (2) memory full. Please Clear IDC data.	IDC FILE (3) memory is full of items.
E182 IDC FILE (3) memory full. Please Clear IDC data.	CF card is not inserted to the slot.
E200 Insert CF card.	CF card data or formatis illegal.
E201 Format error.	Insufficient memory is remained in CF card.
E203 Insufficient memory.	File name duplication error.
E205 The file already exists. Do you want to replace? YES : Replace the file. NO : Input new name.	

10-2. Operation prompt

All prompt messages, together with descriptors and symbol characters for printing on receipts, slips or reports are contained in the list below. These messages cannot be added, modified or deleted.

Prompt message	Meaning
Data cannot be printed out. Do you want to display?	Request to check the data which cannot be printed out.
Do you want to clear data?	Confirmation to reset displayed report.
Cancel OK?	Confirmation of all void operation.
Please wait.	Please wait. ECR now processing.
Item Consolidation Mode.	In the item consolidation mode.
Non Consolidation Mode.	Not in the item consolidation mode.
REG MODE	Mode change : REG mode
REFUND MODE REG– MODE	Mode change : RF mode Mode change : REG– mode
REG2 MODE	Mode change : REG 2 mode
Training	Training operator
Please Sign on.	Sign off
Enter Check/Table Number.	CHK# compulsory
Enter Table Number	TBL# compulsory
Enter Number of covers.	Covers compulsory
Enter Seat Number	Seat# compulsory
Perform Slip Printing	Slip compulsory
Issue Guest Receipt.	GUEST RCT compulsory
Perform Validation Printing.	VLD compulsory
Perform Check Printing.	CHK-PRT compulsory
Perform Check Endorsement.	CHK-END compulsory
Operation Code?	Secret No entry for REG 2 mode
Copy of not printed data.	Display header of mon printed data.
Re_configuration…	Durring system reconfiguration.
Re_configuration and	System reconfiguration ends.
Clock-in OK?	Time and attendance clock-in operation.
Clock-out OK?	Time and attendance clock-out operation.
Break-out OK?	Time and attendance break-out operation.
Enter cash tip amount and press <YES> key.	Time and attendance tip declaration compulsory.
Communication Error	Communication error during clock-in.
This procedure stops system maximum 60 sec. OK?	Alert before flash memory clear.

10-3. System error code

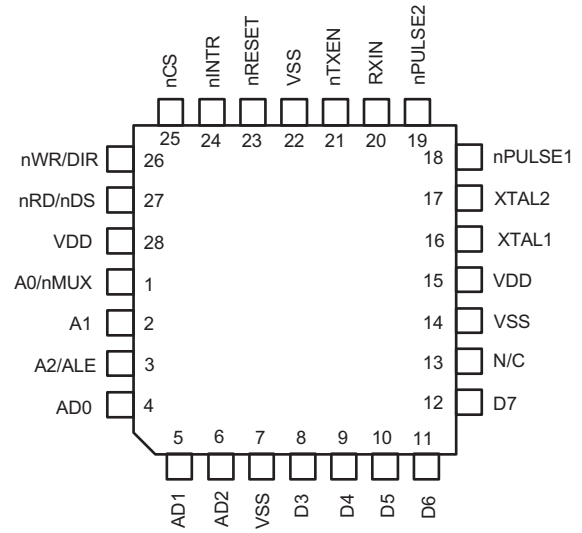
All error codes are contained in the list below. These error codes are displayed or printed on error log report.

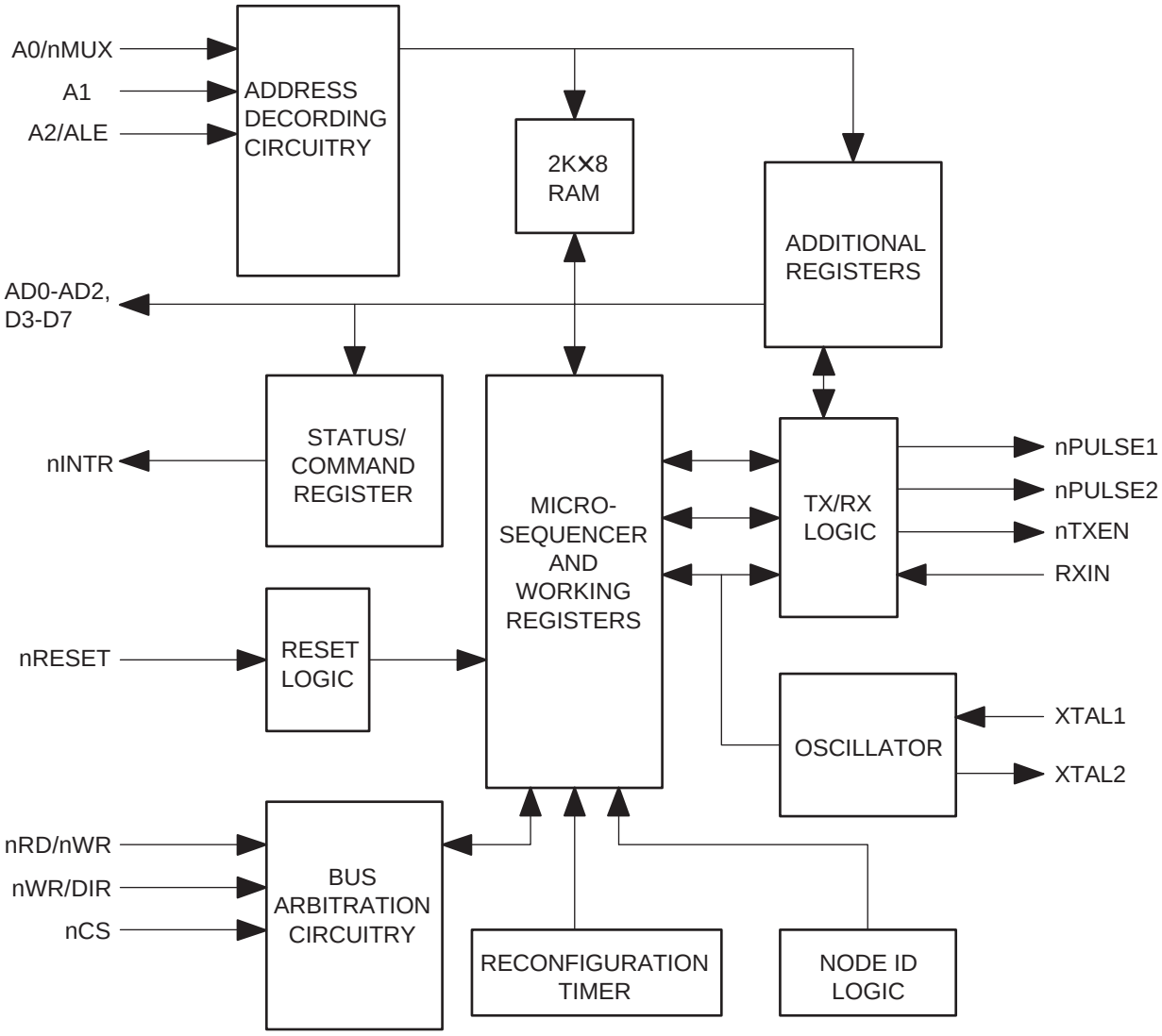
Error code	Meaning
0010	Handler access error (software)
0011	Cannot execute handler (system configuration)
0012	Break by PC
0013	Break by ECR
0014	DSR off before receiving command packet
0015	Receive illegal command number of command packet
0016	Receive illegal character
0017	Send error (hardware)
0018	Receive error (hardware)
0019	Receive illegal data packet
0020	No response error
0021	Receive illegal command phase
0022	Received illegal packet
0023	CNET receive error
0024	Illegal termination by sender
0025	Received illegal packet during receiving data packets
0026	Not enough data packets received
0027	Flash erase error
0028	Flash write error
0040	No “H” information
0041	No “I” information
0042	No “F” information
0044	Illegal packet format
0045	No file exists
0046	Illegal block
0047	Illegal command packet
0048	Illegal command No. (Not CMD)
0049	Illegal command No. (Not DATA)
0050	Sequence error
0051	Turn off DSR signal
0052	Received cancellation
0053	Retry over while waiting command
0054	Retry over while waiting EOT
0055	Retry over while waiting data
0056	Received EOT
0057	Retry over while waiting ACK
0058	Retry over while sending data
0059	Retry over while waiting “C”
0060	Retry over while sending response
0061	Retry over while excluding
0064	Break end
0065	Error during printing report header
0066	Error during printing report data
0067	Error during printing report data in work file
0068	Error during printing report data in consolidation file
0069	Work file clear error
0070	Consoloidation file clear error
0071	Z Iock error
0072	Z clear error
0073	Z Iock release error

Error code	Meaning
0074	Error during accumulating to consolidation file
0075	Error during copying report data from terminal memory to work
0076	Error during copying stock data to terminal memory
0077	Z lock error on satellite terminal
0078	Z clear error on satellite terminal
0079	Z lock release error on satellite terminal
0128	Parameter error/Maximum length of send error
0130	Error drive
0134	Network parameter error
0138	Detect error in core system
0140	Parameter error (record length exceeds work buffer)
0141	EOF over
0144	Calculation overflow
0145	Undefined value of n_open () mode
0146	Mismatch of type when closing network
0147	Parameter error
0152	Defined ncb is not network resource
0153	Retry over by the target busy
0155	Sequence error
0156	No port exists
0158	Target port in use
0160	Error while getting priority
0161	Fail to change temporary priority
0162	Error semaphore operation to keep resource
0163	Fail to get new sled
0164	Error while getting semaphore
0165	Error to operate semaphore
0166	Error during delay
0167	Error during termination
0168	Error when resource return
0170	Error during getting task ID
0171	No code is found while search/pick up
0172	Cannot get work buffer
0173	File opened/fail to activate task
0174	No file exists
0175	ITRON service error
0176	Cannot create file
0177	Record number error
0178	Detect error while memory area opening
0179	Detect error while returning mail box double create error
0180	Detect error while handling memory
0190	rcb is not e-mail box resource
0192	Error send message id
0194	Send message length over
0197	ending response
0198	Time out while waiting for ending response/no receive message
0202	No free PCB
0204	Memory capacity shortage
0205	Fail to create mail box
0209	Cannot find the coincide PCB resource
0210	Cannot find the coincide PCB resource
0232	ID collision when network starts
0235	Protocol error
0247	Stop token

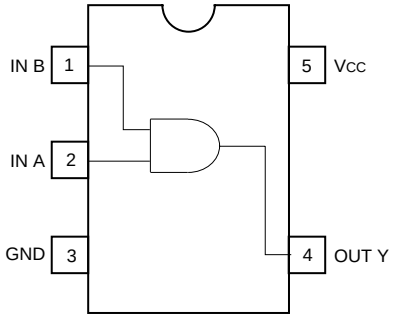
11. IC DATA

1. COM20019ILJP (IC14)

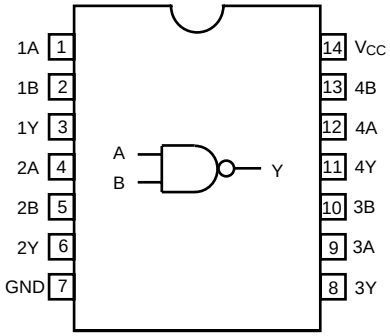




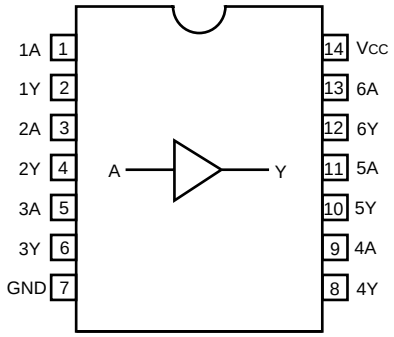
2. HD74HCT1G08CME (IC45,46)



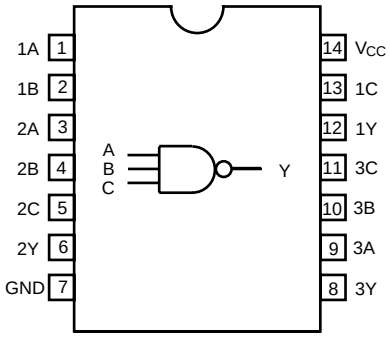
3. HD74LV00 (IC20,29)



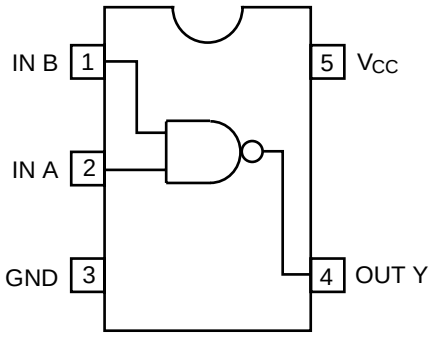
4. HD74LV07 (IC19,22)



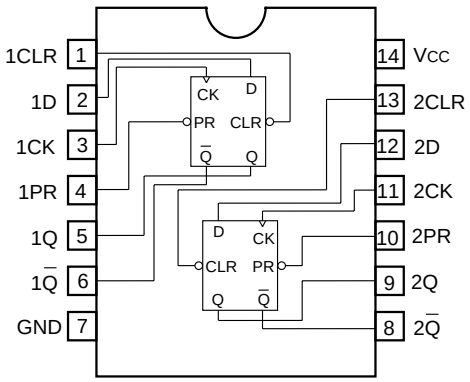
5. HD74LV10 (IC28)



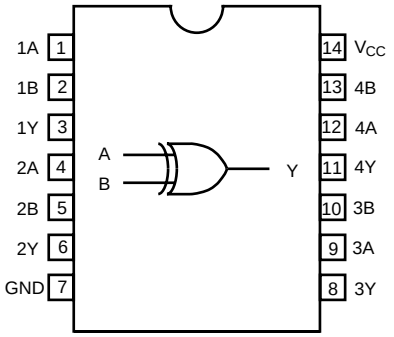
6. HD74L1G00 (IC18)



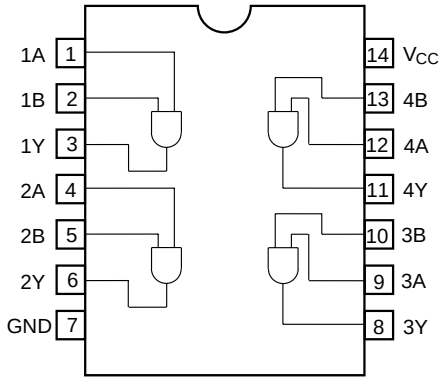
7. HD74LV74 (IC24)



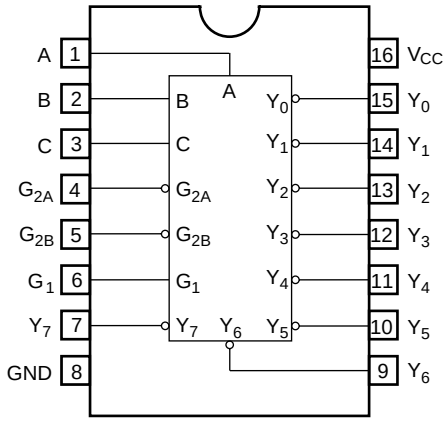
8. HD74LV86 (IC27)



9. HD74LVC08 (IC23,25)



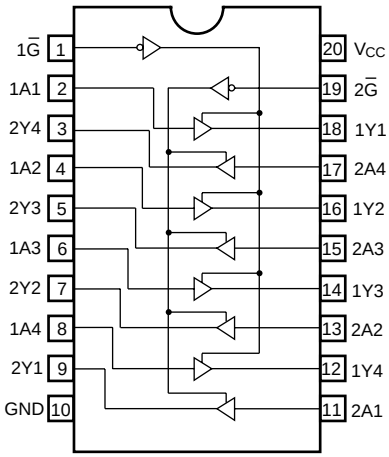
10. HD74LVC138 (IC21)



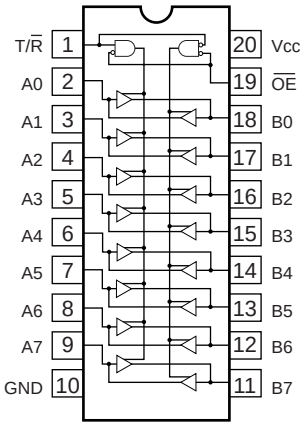
Inputs						Outputs							
Enable			Select										
G_1	G_{2A}	G_{2B}	C	B	A	Y_0	Y_1	Y_2	Y_3	Y_4	Y_5	Y_6	Y_7
X	X	H	X	X	X	H	H	H	H	H	H	H	H
X	H	X	X	X	X	H	H	H	H	H	H	H	H
L	X	X	X	X	X	H	H	H	H	H	H	H	H
H	L	L	L	L	L	L	H	H	H	H	H	H	H
H	L	L	L	L	H	H	L	H	H	H	H	H	H
H	L	L	L	H	L	H	H	L	H	H	H	H	H
H	L	L	L	H	H	H	H	H	L	H	H	H	H
H	L	L	H	L	L	H	H	H	H	L	H	H	H
H	L	L	H	L	H	H	H	H	H	H	L	H	H
H	L	L	H	H	L	H	H	H	H	H	H	L	H
H	L	L	H	H	H	H	H	H	H	H	H	H	L

H: High
L: Low
X: Don t care

11. HD74LVC244 (IC3,5)



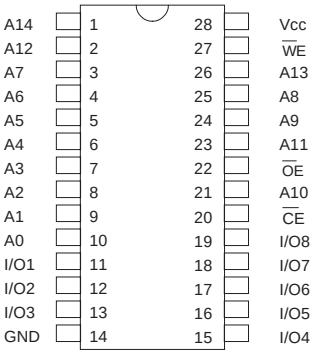
12. HD74LVC245 (IC2,6)

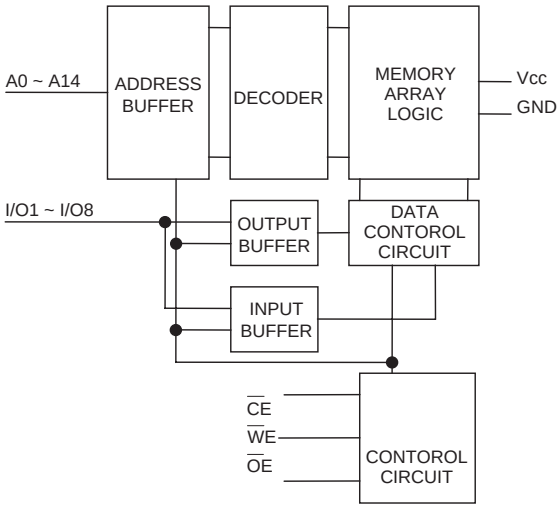


Inputs		Output Y
$\overline{OE}$	T / $\overline{R}$	
L	L	Bus B Data to Bus A
L	H	Bus A Data to Bus B
H	X	Z

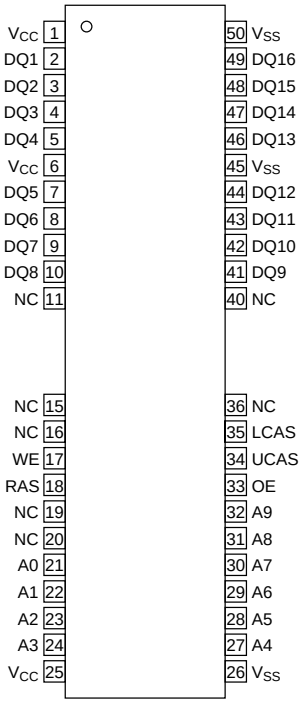
H : High
L : Low
X : Don t care
Z : High impedance

13. LC35256FT (IC1)



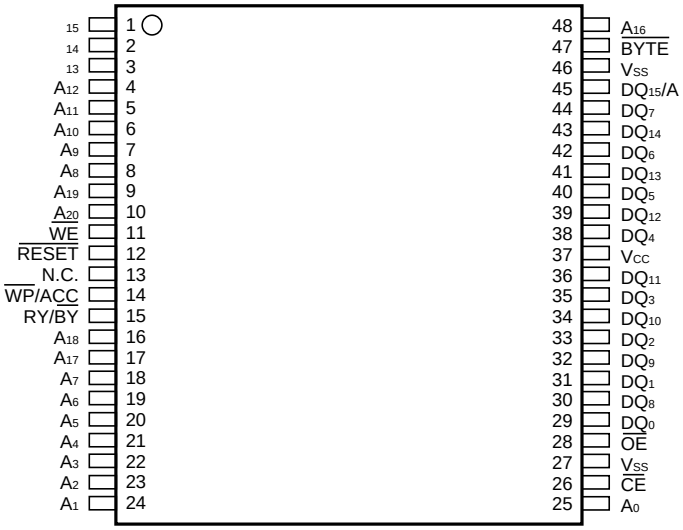


14. M51V18165DSL (IC8,12)



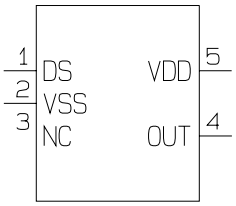
PIN NAME	Function
A0 ~ A9	ADDRESS INPUT
RAS	ROW ADDRESS STROBE
LCAS	COLUMN ADDRESS STROBE
UCAS	COLUMN ADDRESS STROBE
DQ1 ~ DQ16	DATA
OE	OUTPUT ENABLE
WE	WRITE ENABLE
V_{CC}	POWER SUPPLY (3.3V)
V_{SS}	GND (0V)
NC	NOT USED

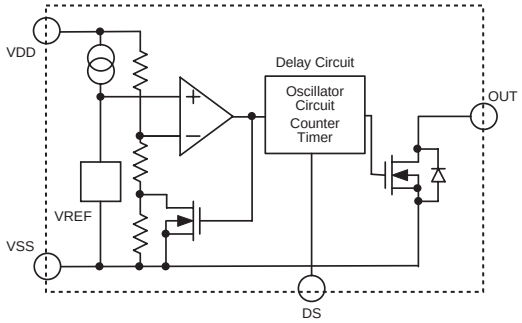
15. MBM29DL324BE90TN (IC9)



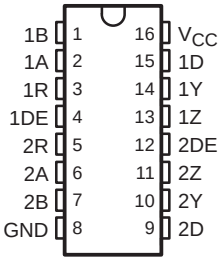
PIN NAME	Function	PIN NAME	Function
A1, A0 ~ A20	ADDRESS INPUT	RY/$\overline{BY}$	RADY/BUSY
DQ0 ~ DQ15	DATA	$\overline{BYTE}$	8 bit/16 bit
$\overline{CE}$	CHIP ENABLE	$\overline{WP}$/ACC	WRITE PROTECT/ ACCELERATOR
$\overline{OE}$	OUTPUT ENABLE	VSS	GND
$\overline{WE}$	WRITE ENABLE	VCC	POWER SUPPLY
$\overline{RESET}$	RESET	N.C.	NOT USED

16. S-80130CNMC (IC30)





17. SN751178NSR (IC39)



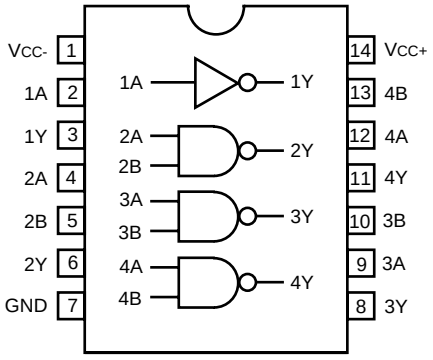
INPUT D	ENABLE DE	OUTPUTS Y	OUTPUTS Z
H	H	H	L
L	H	L	H
X	L	Z	Z

H = high level,
L = low level,
X = irrelevant,
Z = high impedance (off)

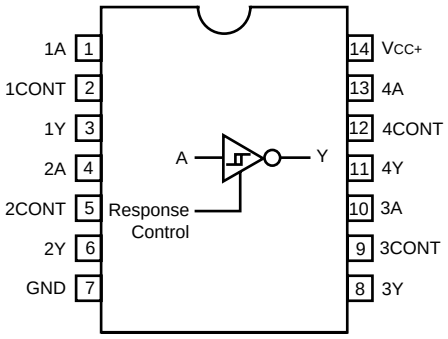
DIFFERENTIAL INPUTS A – B	OUTPUT R
V_{ID} . 0.2 V	H
–0.2 V < V_{ID} < 0.2 V	?
V_{ID} 3 –0.2 V	L

H = high level,
L = low level,
? = indeterminate

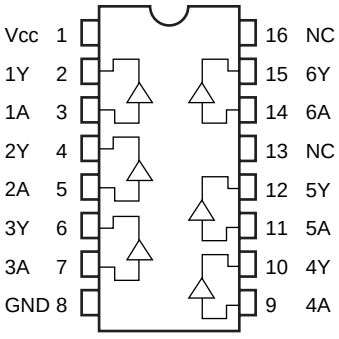
18. SN75188PWR (IC34,35,38,41,42)



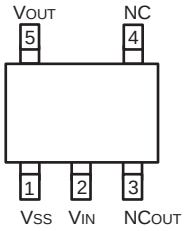
19. SN75189APWR (IC31-33,36,37)

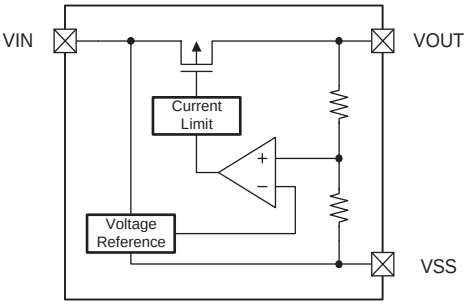


20. TC74HC4050AFT (IC26)

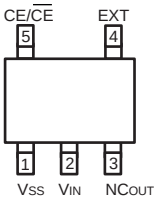


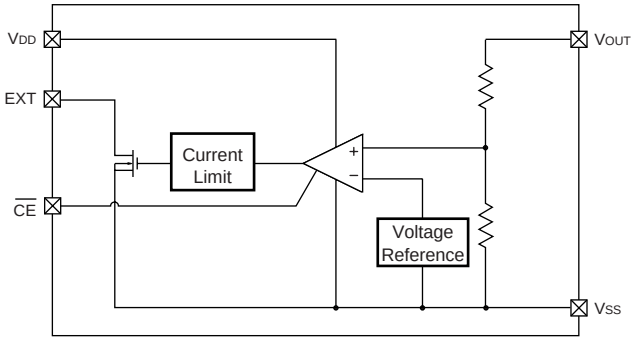
21. XC6201P192MR (IC17)



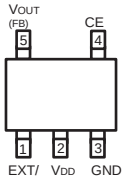


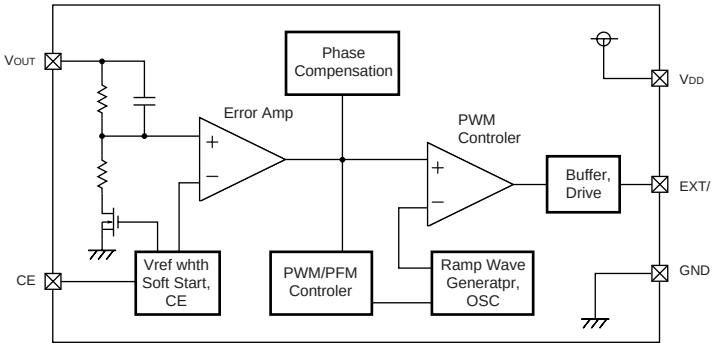
22. XC62EP1902MR (IC44)





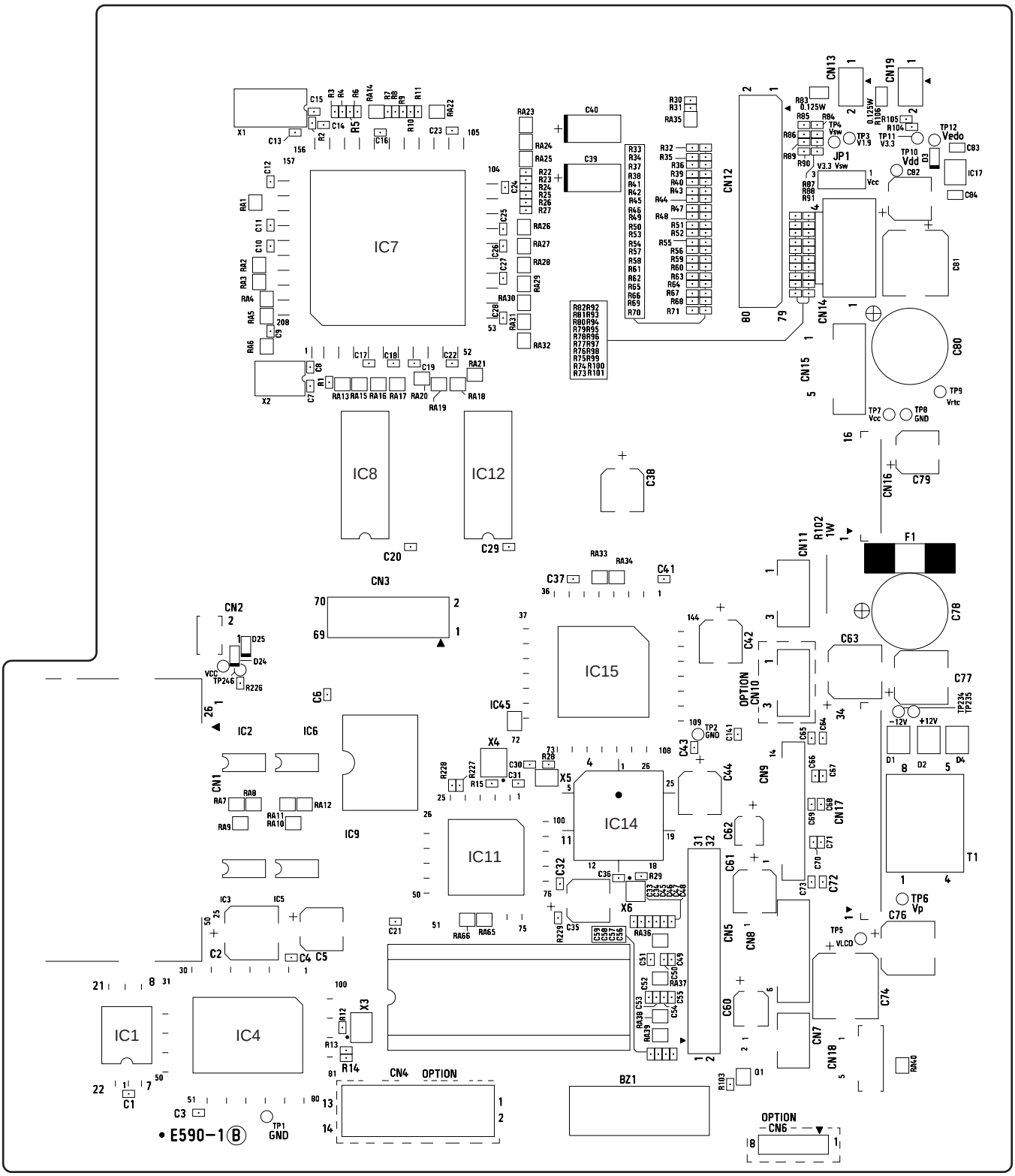
23. XC6365A363MR (IC43)



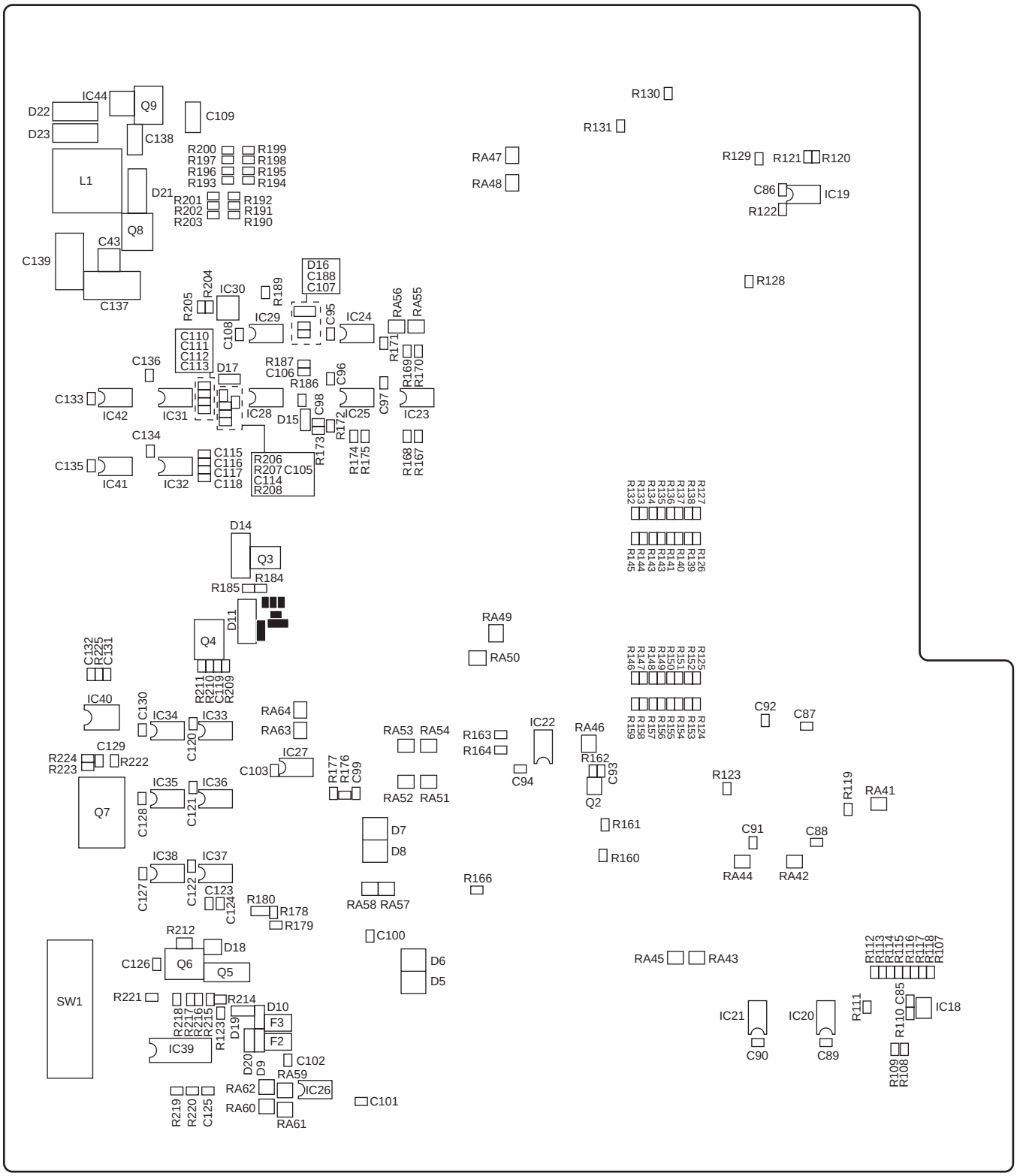


12. PCB LAYOUT

(Front side)



(Back side)


IC44
Q9
D22
D23
C109
C138
L1
D21
Q8
C43
C139
C137
R200
R197
R196
R193
R199
R198
R195
R194
R201
R202
R203
R192
R191
R190
R130
R131
RA47
RA48
R129
R121
R120
C86
IC19
R122
R128
D16
C188
C107
IC30
R204
R205
R189
IC29
C108
C95
IC24
R56
R55
R171
C110
C111
C112
C113
C136
D17
R187
C106
R186
C96
R169
R170
C133
IC42
IC31
IC28
D15
C98
IC25
C97
IC23
C134
C135
IC41
IC32
C115
C116
C117
C118
R206
R207
C105
C114
R208
R173
R172
R174
R175
R168
R167
R133
R134
R135
R136
R137
R138
R127
R132
R144
R143
R141
R140
R139
R126
R145
D14
Q3
R184
R185
D11
Q4
RA49
RA50
C132
R225
C131
R211
R210
C119
R209
R147
R148
R149
R150
R151
R152
R125
R146
R158
R157
R156
R155
R154
R153
R124
R159
IC40
C130
IC34
IC33
C120
RA64
RA63
C92
C87
IC22
RA46
R163
R164
C94
R162
C93
Q2
C129
R224
R223
R222
IC27
C103
R177
R176
C99
RA53
RA54
RA52
RA51
R123
R119
RA41
IC35
IC36
C121
Q7
C128
D7
D8
R161
R160
C91
C88
RA44
RA42
IC38
IC37
C127
C122
C123
C124
R180
R178
R179
RA58
RA57
R166
R212
C100
D18
C126
Q6
Q5
D6
D5
RA45
RA43
R112
R113
R114
R115
R116
R117
R118
R107
SW1
R221
R218
R217
R216
R215
R123
R214
D10
D19
F3
F2
IC39
D20
D9
C102
RA59
RA62
RA60
IC26
C101
RA61
R219
R220
C125
IC21
IC20
R111
C85
R110
IC18
C90
C89
R109
R108

13. CIRCUIT DIAGRAM

MODEL : QT-2100 (EX-590)

CONTENTS

1. OPTION BLOCK DIAGRAM 71

2. MAIN PCB CIRCUIT 72
   2-1. MAIN PCB CIRCUIT (1/9) 72
   2-2. MAIN PCB CIRCUIT (2/9) 73
   2-3. MAIN PCB CIRCUIT (3/9) 74
   2-4. MAIN PCB CIRCUIT (4/9) 75
   2-5. MAIN PCB CIRCUIT (5/9) 76
   2-6. MAIN PCB CIRCUIT (6/9) 77
   2-7. MAIN PCB CIRCUIT (7/9) 78
   2-8. MAIN PCB CIRCUIT (8/9) 79
   2-9. MAIN PCB CIRCUIT (9/9) 80

3. KEYBOARD 81
   3-1. KEYBOARD 1 81
   3-2. KEYBOARD 2 82

4. CONNECTOR BOARD 83
   4-1. CONNECTOR BOARD 1 83
   4-2. CONNECTOR BOARD 2 83

5. KEY SHEET SWITCH 85

6. ARCNET BOARD 86

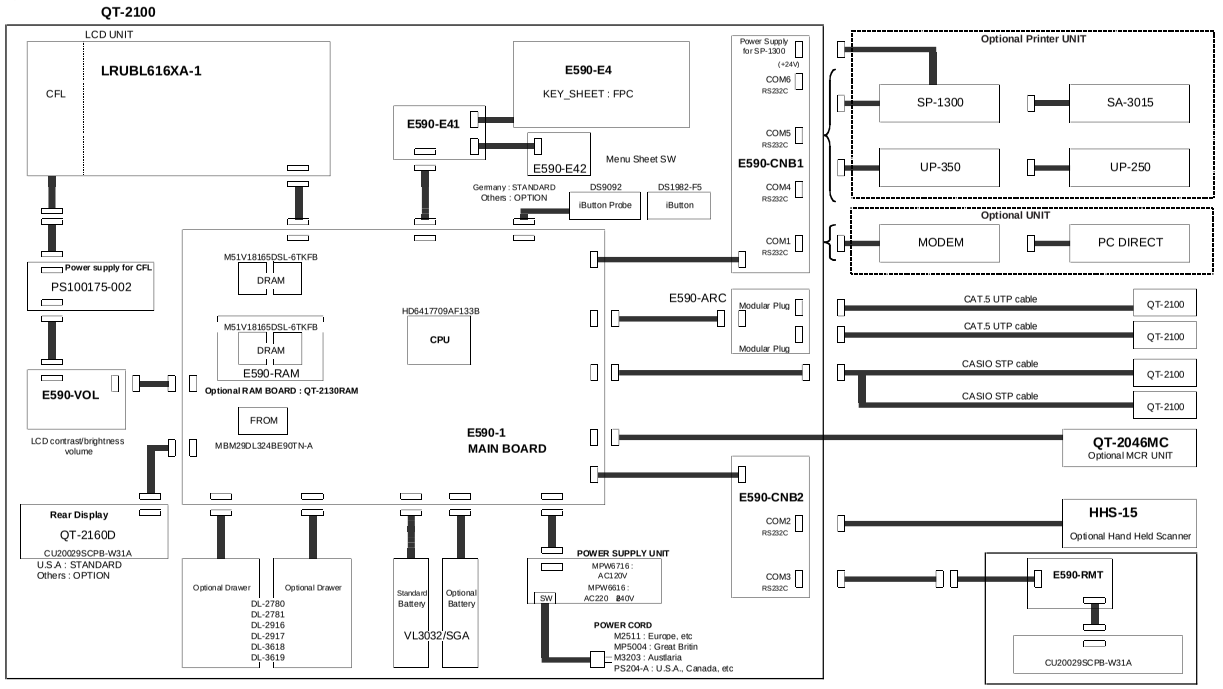
7. LCD VOLUME 87

8. EXPANDED RAM BOARD (OPTION) 88

9. REMORT DISPLAY (OPTION) 89

Items	Circuit Names	Management Criteria	Remarks
Power supply voltage	Vp	22.8V ~ 25.2V (typ 24.0V)	Waiting (no option)
	Vcc	4.75V ~ 5.25V (typ 5.00V)	
	Vdd	4.75V ~ 5.25V (typ 5.00V)	
	V3.3	3.00V ~ 3.60V (typ 3.30V)	
	Vedo	3.20V ~ 3.60V (typ 3.30V)	
	V1.9	1.75V ~ 2.05V (typ 1.90V)	
	Vrts	1.75V ~ 2.05V (typ 1.90V)	
Battery discharge current	Vdeo	650uA (typ 300uA)	Battery voltage 3.1 ± 0.1V
LCD drive voltage	VLCD	26.6V ~ 39.4V (typ 28.0V)	The LCD contrast is positioned in center.
	Vcon	23.5V ~ 26.0V (typ 24.5 ~25.0V)	
RS232C drive voltage	+12V	11.4V ~12.6V (typ 12.0V)	Option and loop back connector are not mounted in COM port.
	-12V	-12.6V ~ -11.4V (typ -12.0V)	
Consumed voltage	AC current	100V system (rated AC120V)	Waiting (no option)
		200V system (rated AC230V)	Input value of AC voltage : rated voltage

QT-2100 & OPTION BLOCK DIAGRAM

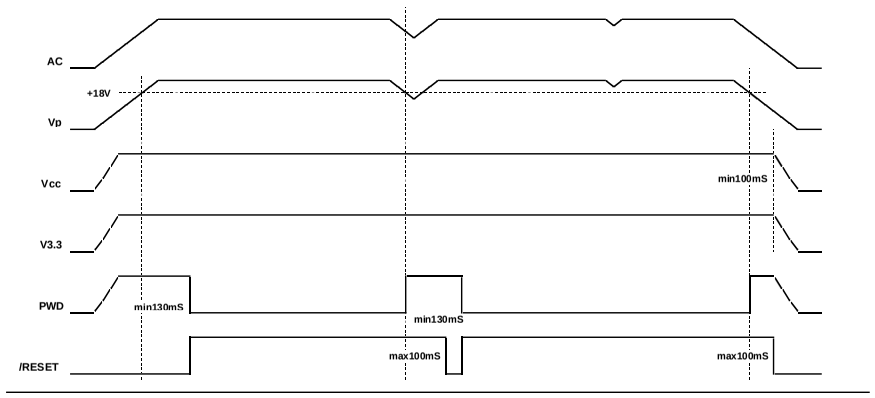


Note : Do not connect REAR DISPLAY and REMOTE DISPLAY at the same time.

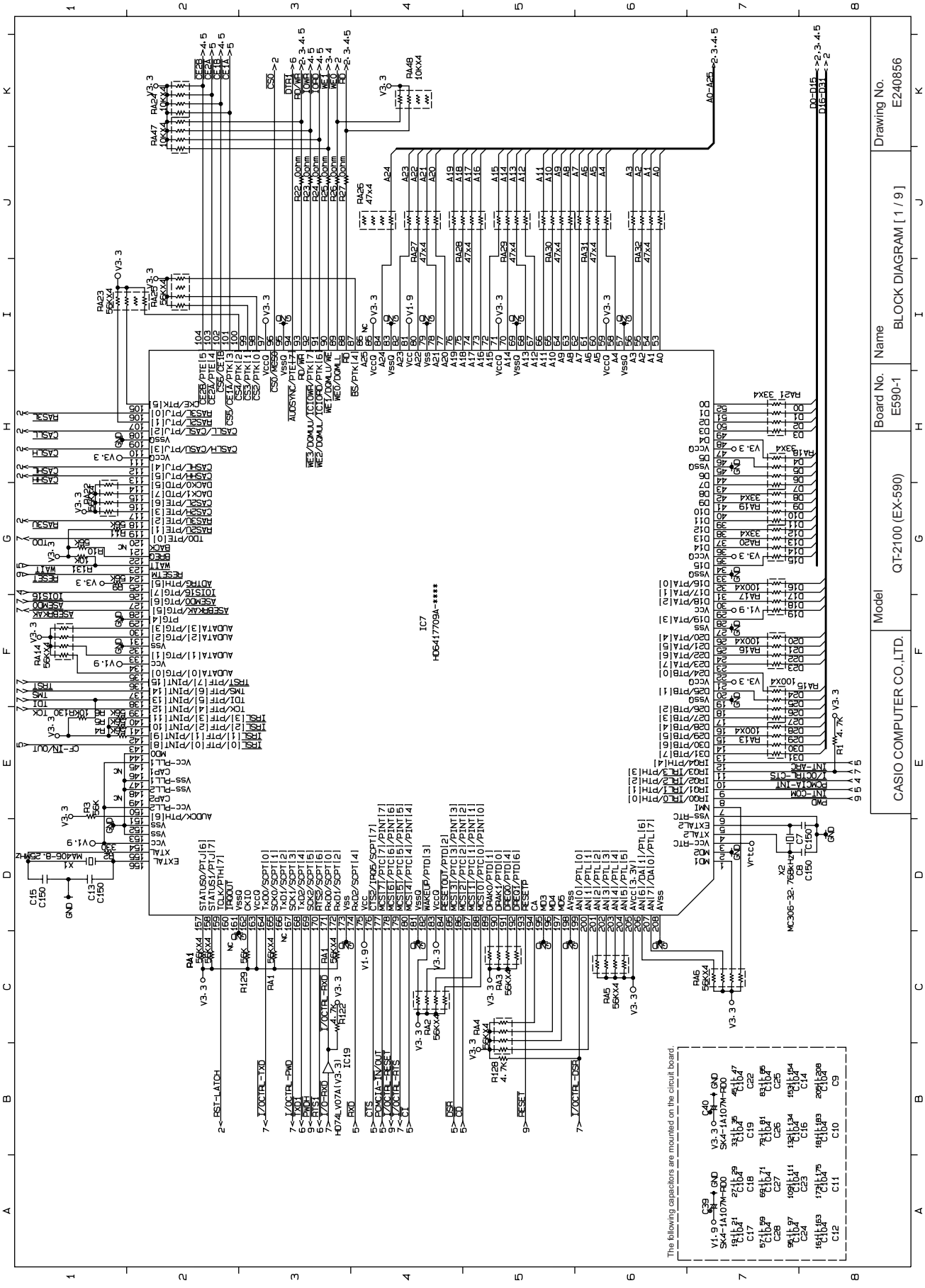
LOCATION OF THE KEY

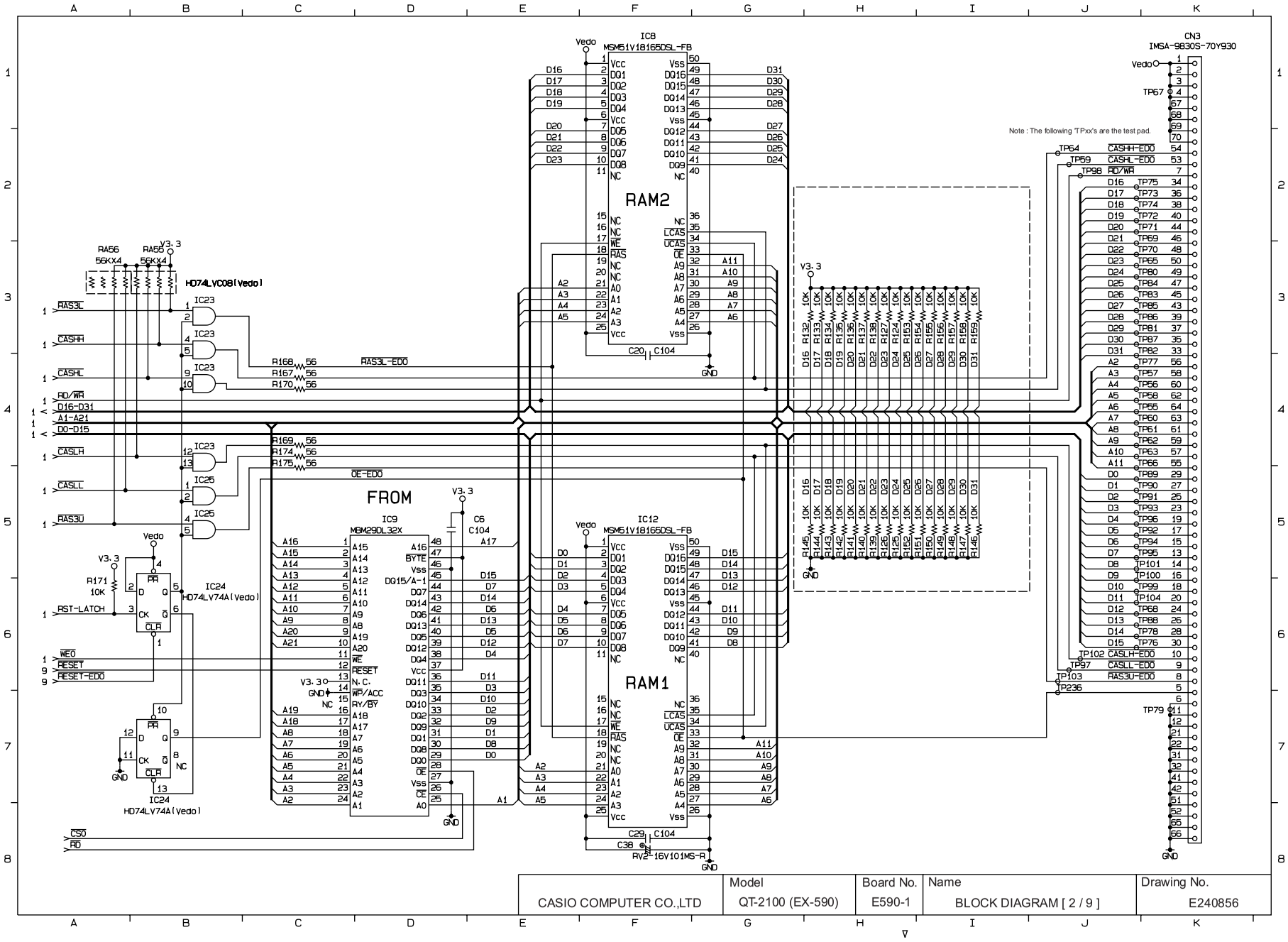
9	18	27	36	45	54	63	72	81	90	99	108
8	17	26	35	44	53	62	71	80	89	98	107
7	16	25	34	43	52	61	70	79	88	97	106
6	15	24	33	42	51	60	69	78	87	96	105
5	14	23	32	41	50	59	68	77	86	95	104
4	13	22	31	40	49	58	67	76	85	94	103
3	12	21	30	39	48	57	66	75	84	93	102
2	11	20	29	38	47	56	65	74	83	92	101
1	10	19	28	37	46	55	64	73	82	91	100
CLK5	REG. MODE	#/NS	MENU SHIFT	TABLE TRANS	NEW/OLD CHK	C	X	VOID	CANCEL	VAT	ESC/ SKIP
CLK4	X/Z MODE	ADD CHK	HOUSE BON	SEAT No	COVERS	7	8	9	CH	RC	PD
CLK3	PGM. MODE	SEP CHK	NO	⇧	PAGE UP	4	5	6	CR	SUB TOTAL	
CLK2	DISP ON/OFF	SUBST.	⇦	HOME	⇨	1	2	3	CHK	CASH/AMT TEND	
CLK1	-	%-	YES	⇩	PAGE DOWN	0	00	.	GUEST RECEIPT	NB	

RESET SEQUENCE

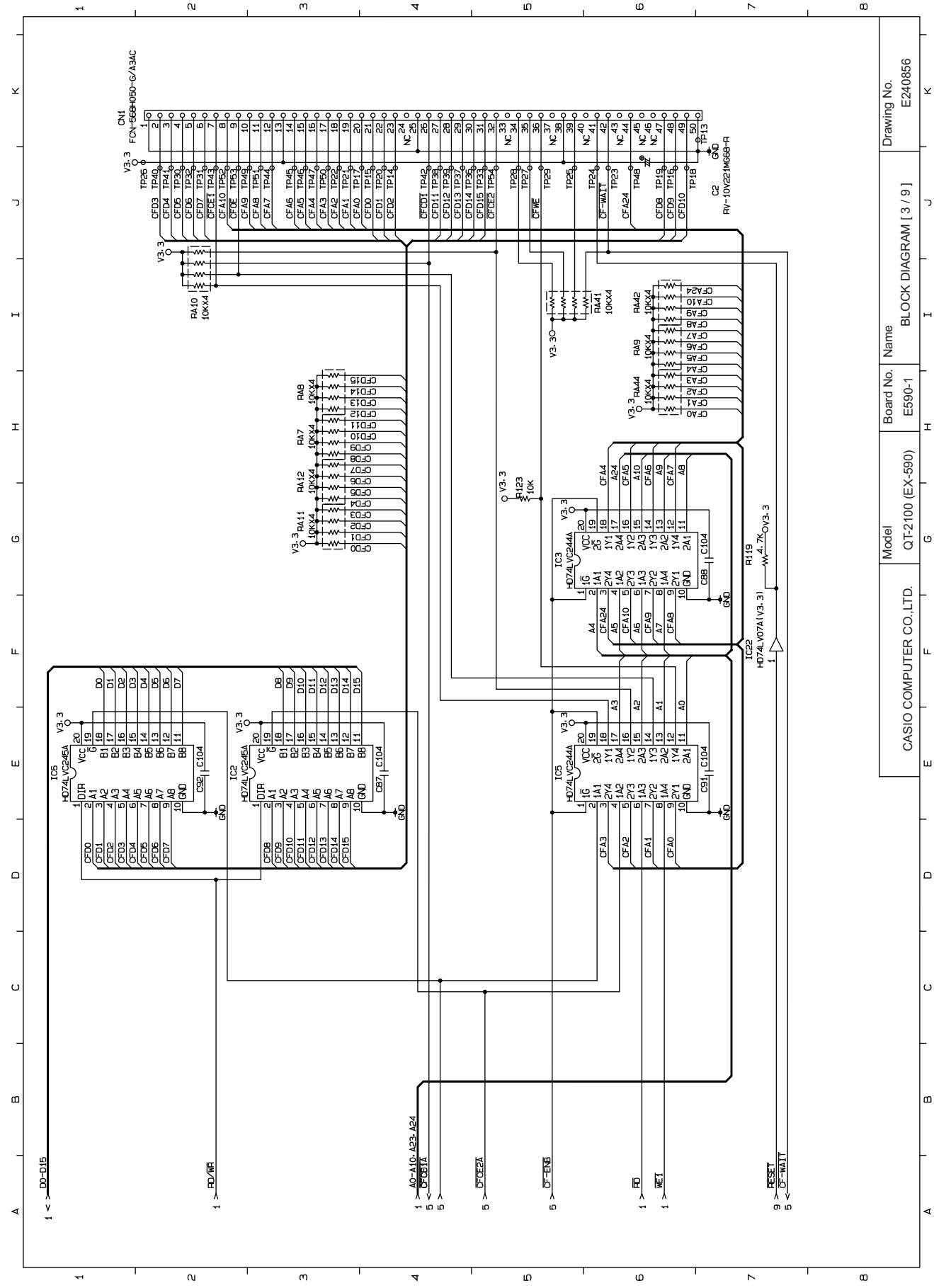


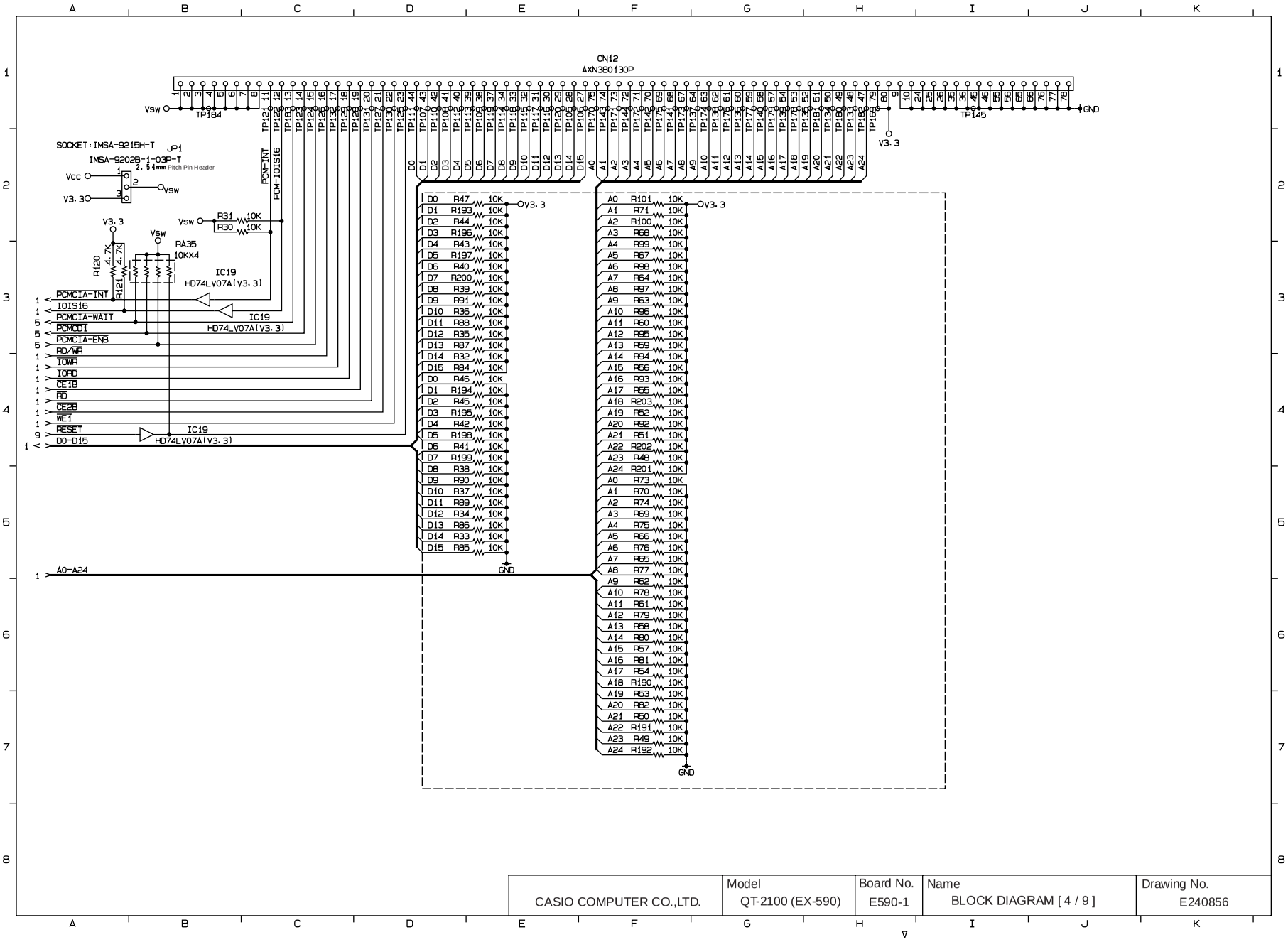
Model QT-2100 (EX-590)	**CASIO COMPUTER CO.,LTD.**
Name SYSTEM BLOCK	Drawing No. E240854


CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Board No.
E590-1
Name
BLOCK DIAGRAM [1 / 9]
Drawing No.
E240856
The following capacitors are mounted on the circuit board.

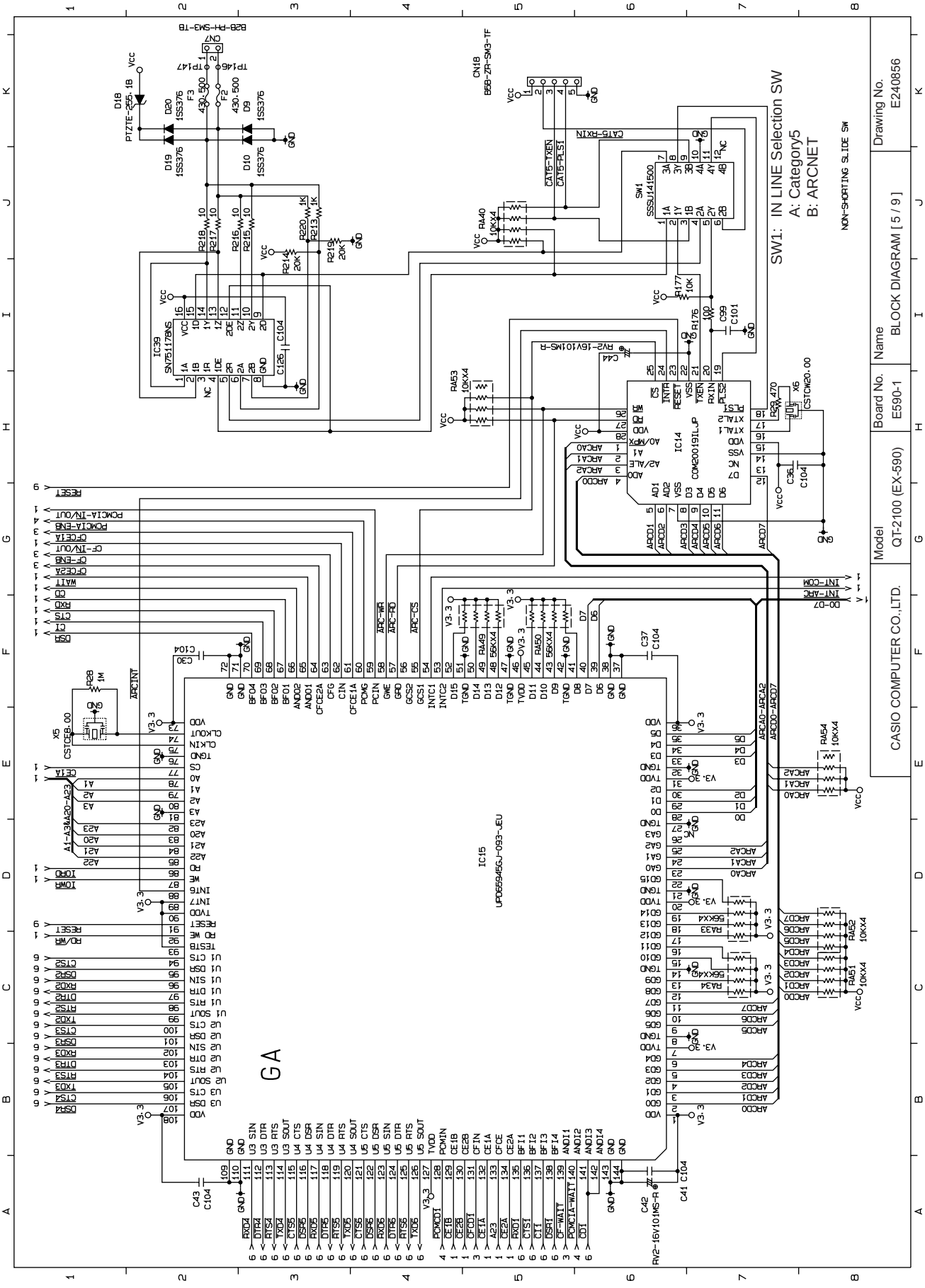


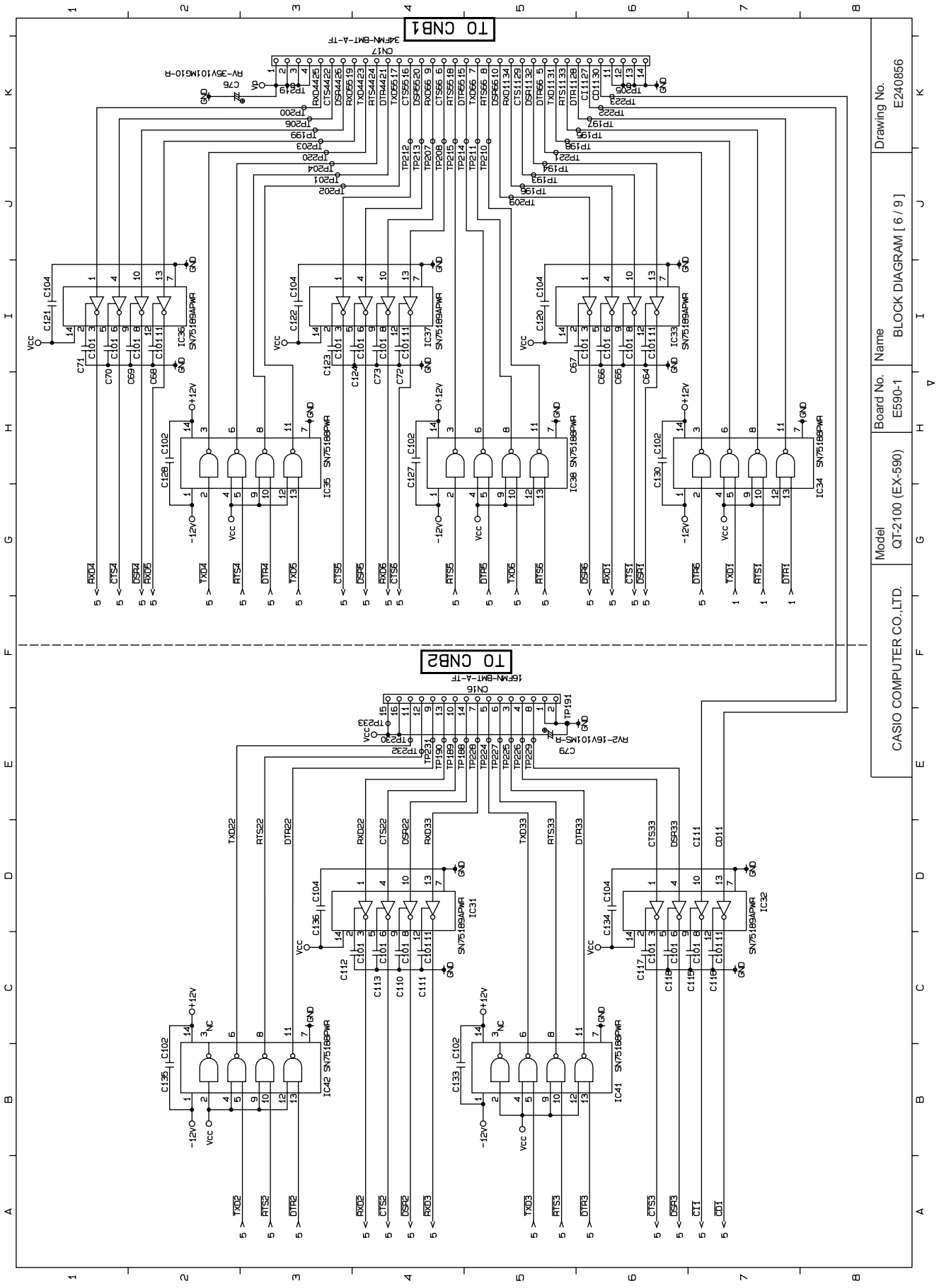
CASIO COMPUTER CO.,LTD	Model	Board No.	Name	Drawing No.
	QT-2100 (EX-590)	E590-1	BLOCK DIAGRAM [2 / 9]	E240856

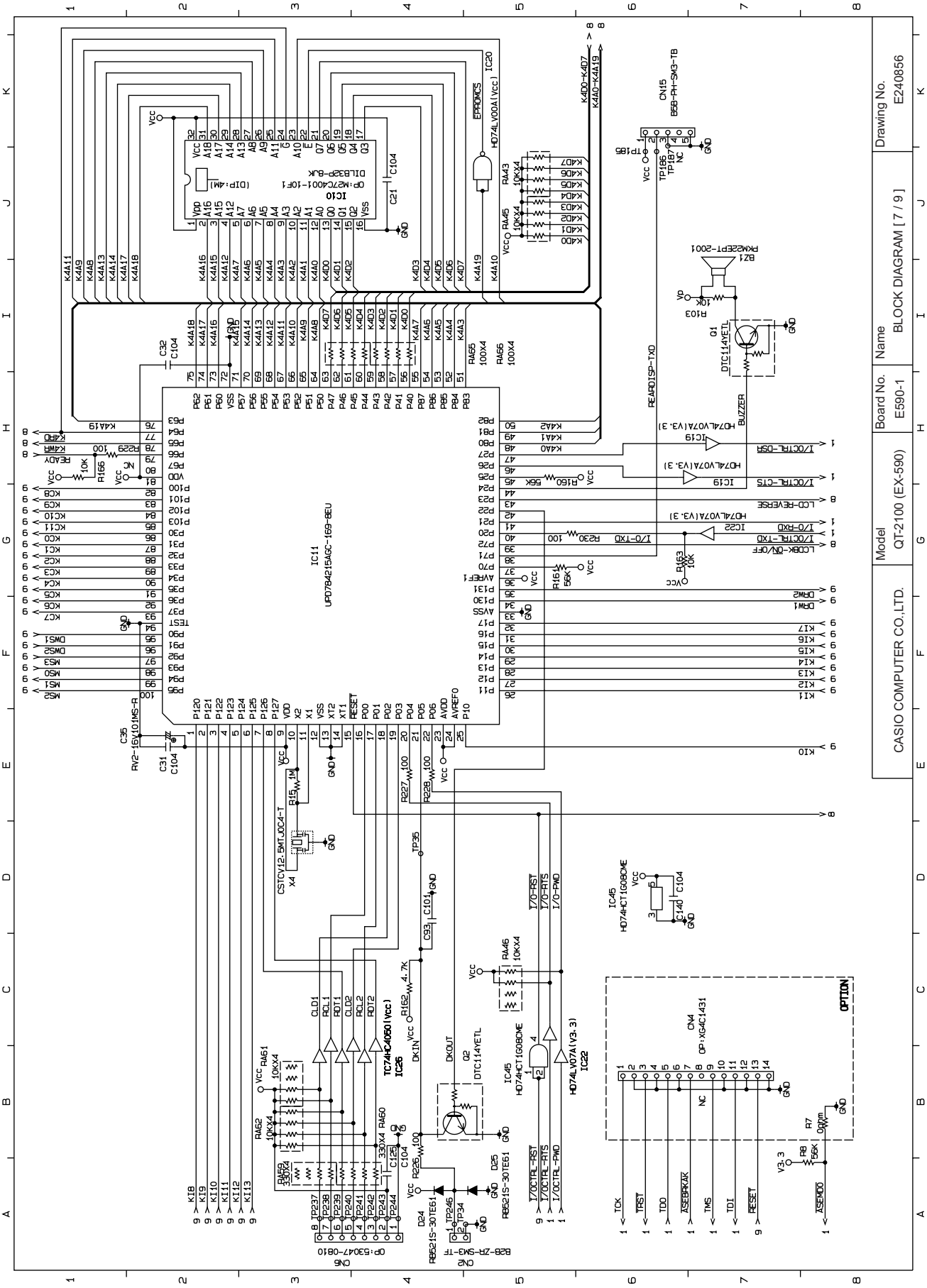

CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Board No.
E590-1
Name
BLOCK DIAGRAM [3 / 9]
Drawing No.
E240856
CN1
FCN-568H050-G/A3AC
C2
RV-10V221M568-R
IC6
IC2
IC5
IC3
IC22
HD74LVC245A
HD74LVC244A
HD74LV07A(V3.3)
R123
10K
R119
4.7K
RA10
RA11
RA12
RA7
RA8
RA9
RA41
RA42
RA44
10KX4
V3.3
GND
DO-D15
RD/WR
A0-A10-A23-A24
CFCE1A
CFCE2A
CF-ENB
RD
WET
RESET
CF-WAIT

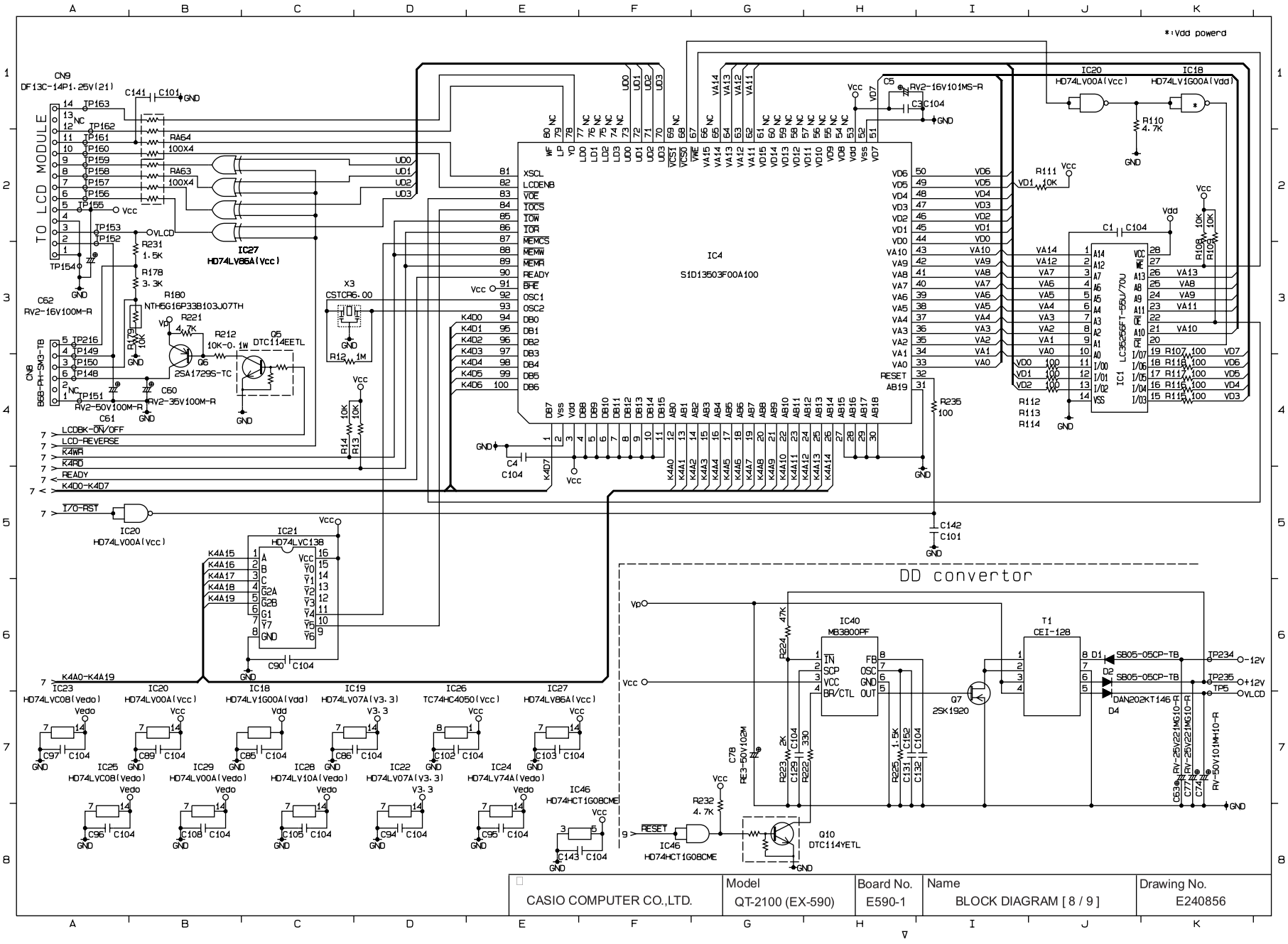


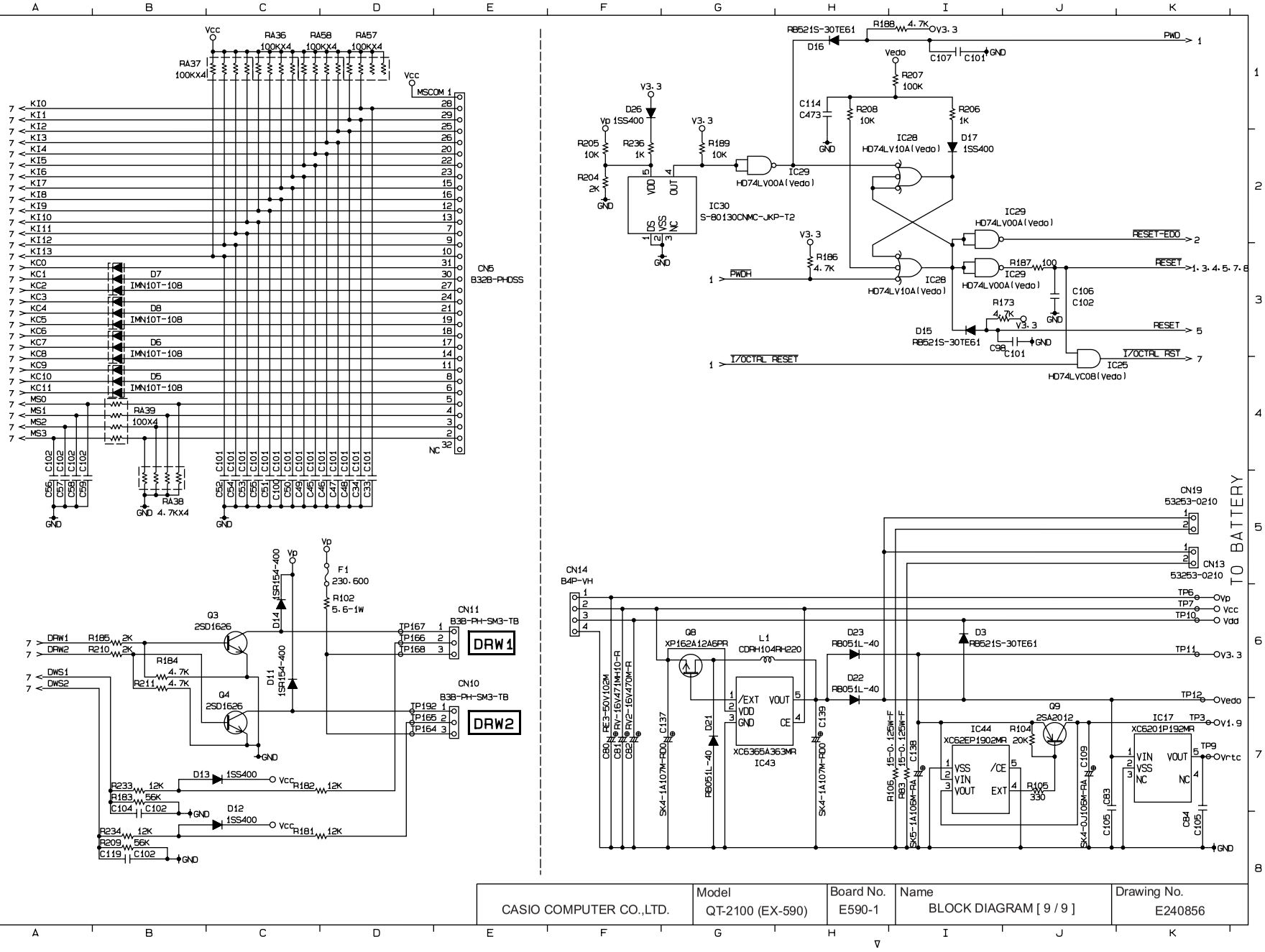
CASIO COMPUTER CO.,LTD.	Model	Board No.	Name	Drawing No.
	QT-2100 (EX-590)	E590-1	BLOCK DIAGRAM [4 / 9]	E240856


SW1: IN LINE Selection SW
A: Category5
B: ARCNET
NON-SHORTING SLIDE SW
GA
IC15
UPD65945GJ-093-JEU
IC14
COM20019ILJP
SW1
SSSU141500
IC39
SN75179BNS
CN18
B6B-ZR-SM3-TF
CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Board No.
E590-1
Name
BLOCK DIAGRAM [5 / 9]
Drawing No.
E240856

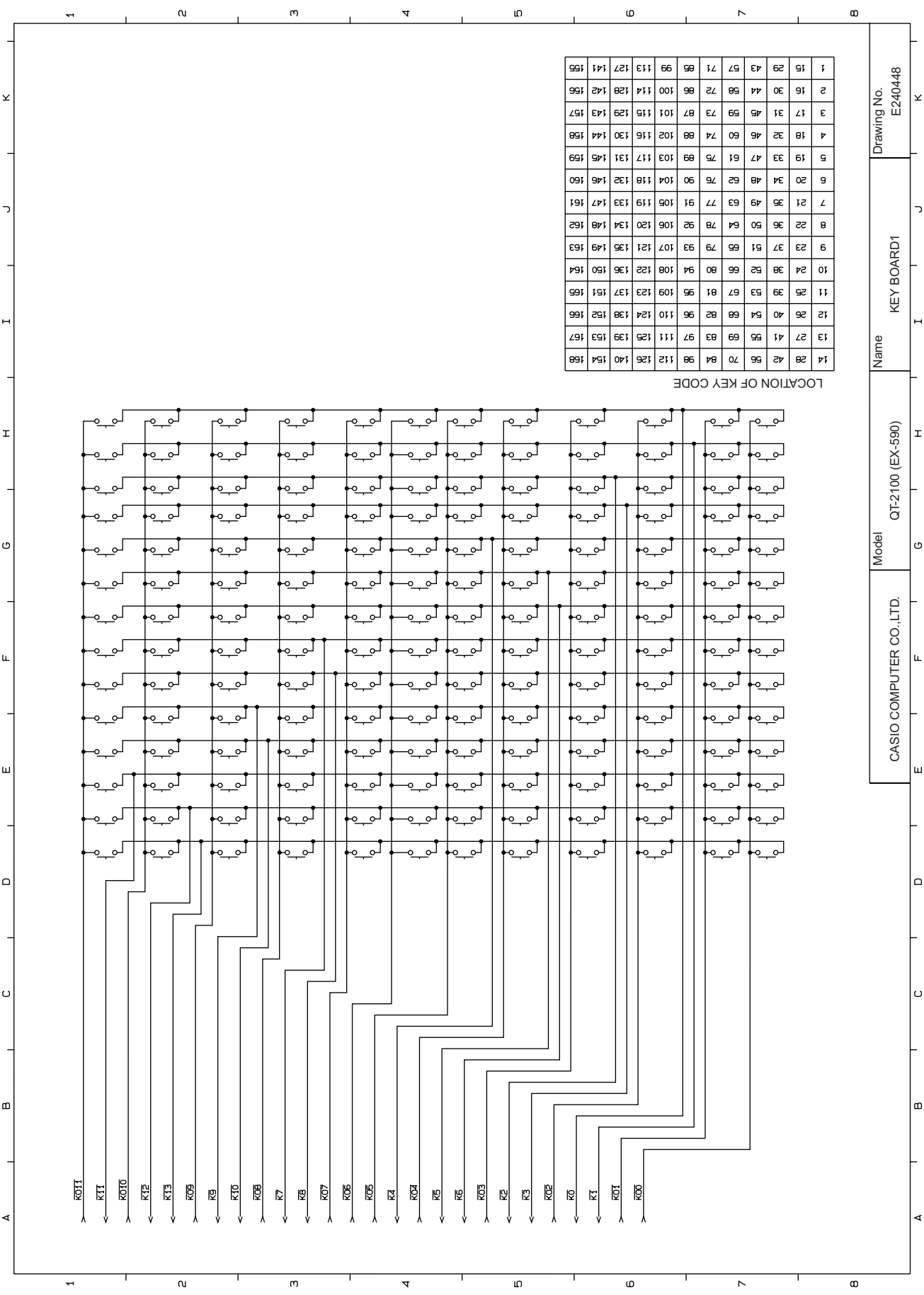

TO CNB1
TO CNB2
CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Board No.
E590-1
Name
BLOCK DIAGRAM [6 / 9]
Drawing No.
E240856


CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Board No.
E590-1
Name
BLOCK DIAGRAM [7 / 9]
Drawing No.
E240856
IC11
UPD784215AGC-169-8EU
IC10
OP:M27C4001-10F1
IC20
HD74LV00A(Vcc)
IC45
HD74HCT1G08CME
IC22
HD74LV07A(V3.3)
IC26
TC74HC4050(Vcc)
IC19
HD74LV07A(V3.3)
IC22
HD74LV07A(V3.3)
CN4
OP:XG4C1431
OPTION
CN5
OP:53047-0810
CN2
B2B-ZR-SM3-TF
CN15
B6B-PH-SM3-TB
X4
CSTCV12.5MTJ0C4-T
BZ1
PKM22EPT-2001
Q1
DTC114YETL
Q2
DTC114YETL
D24
RB521S-30TE61
D25
RB521S-30TE61
BUZZER
READY
RESET
ASEMD0
ASEBRKAK
TCK
TRST
TDO
TMS
TDI
I/O-RST
I/O-RTS
I/O-PWD
I/OCTRL-RST
I/OCTRL-RTS
I/OCTRL-PWD
I/O-TXD
I/OCTRL-TXD
I/OCTRL-CTS
I/OCTRL-DSR
LCD-HEVERSE
LCDBK-ON/OFF
DRM1
DRM2
V3.3
Vcc
GND

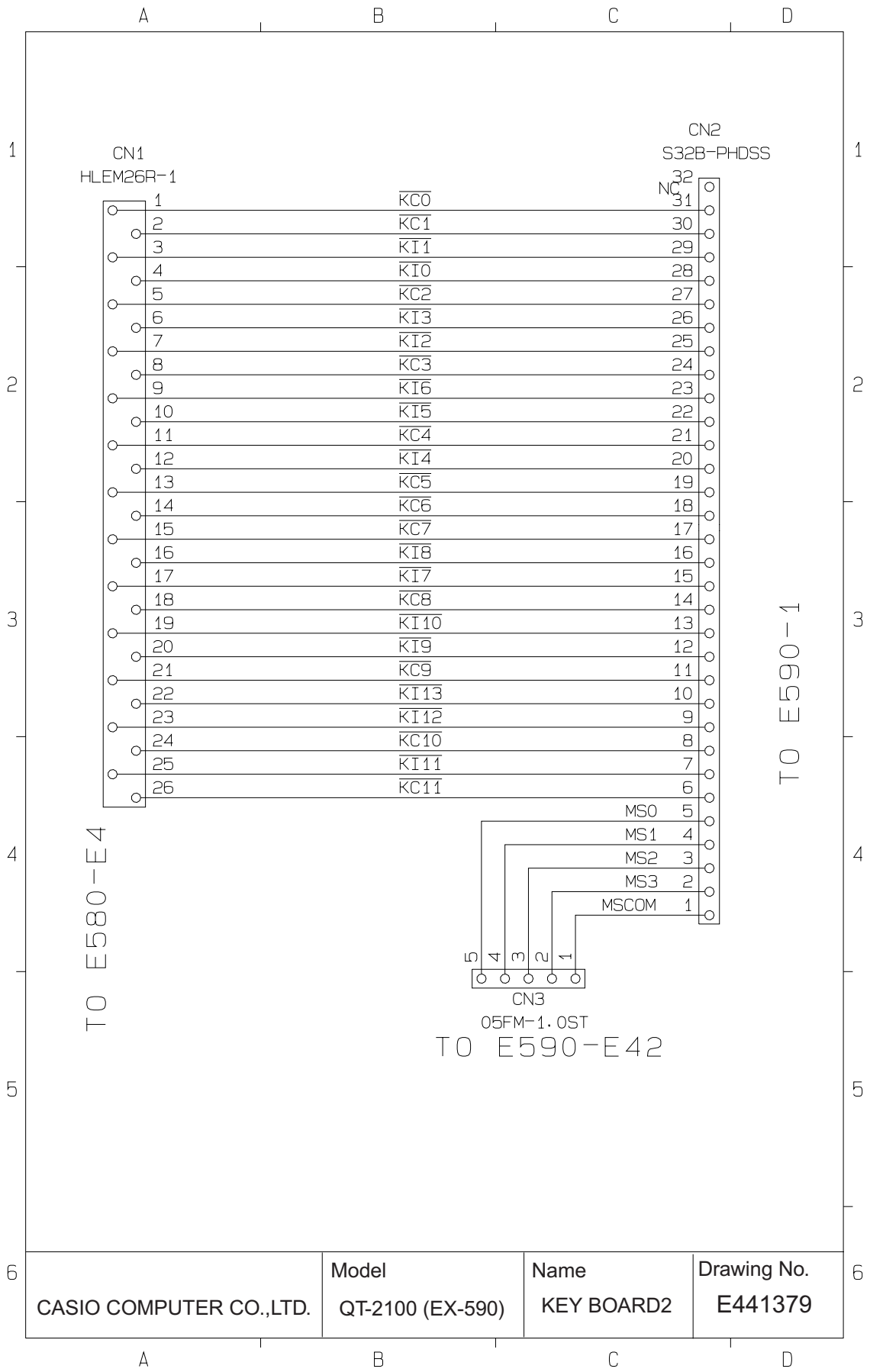

*:Vdd powerd
TO LCD MODULE
IC4
S1D13503F00A100
IC27
HD74LV86A(Vcc)
IC20
HD74LV00A(Vcc)
IC18
HD74LV1G00A(Vdd)
IC21
HD74LVC138
DD convertor
IC40
MB3800PF
T1
CEI-128
IC46
HD74HCT1G08CME
Q7
2SK1920
Q10
DTC114YETL
Q5
DTC114EETL
Q6
2SA1729S-TC
X3
CSTCR6.00
IC1
LC3525GFT-55U/70U
CN9
DF13C-14P1.25V(21)
CN8
B6B-PH-SM3-TB
I70-RST
LCDBK-ON/OFF
LCD-REVERSE
K4WR
K4RD
READY
K4D0-K4D7
K4A0-K4A19
RESET
Vp
Vcc
Vedo
Vdd
V3.3
VLCD
+12V
-12V
CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Board No.
E590-1
Name
BLOCK DIAGRAM [8 / 9]
Drawing No.
E240856



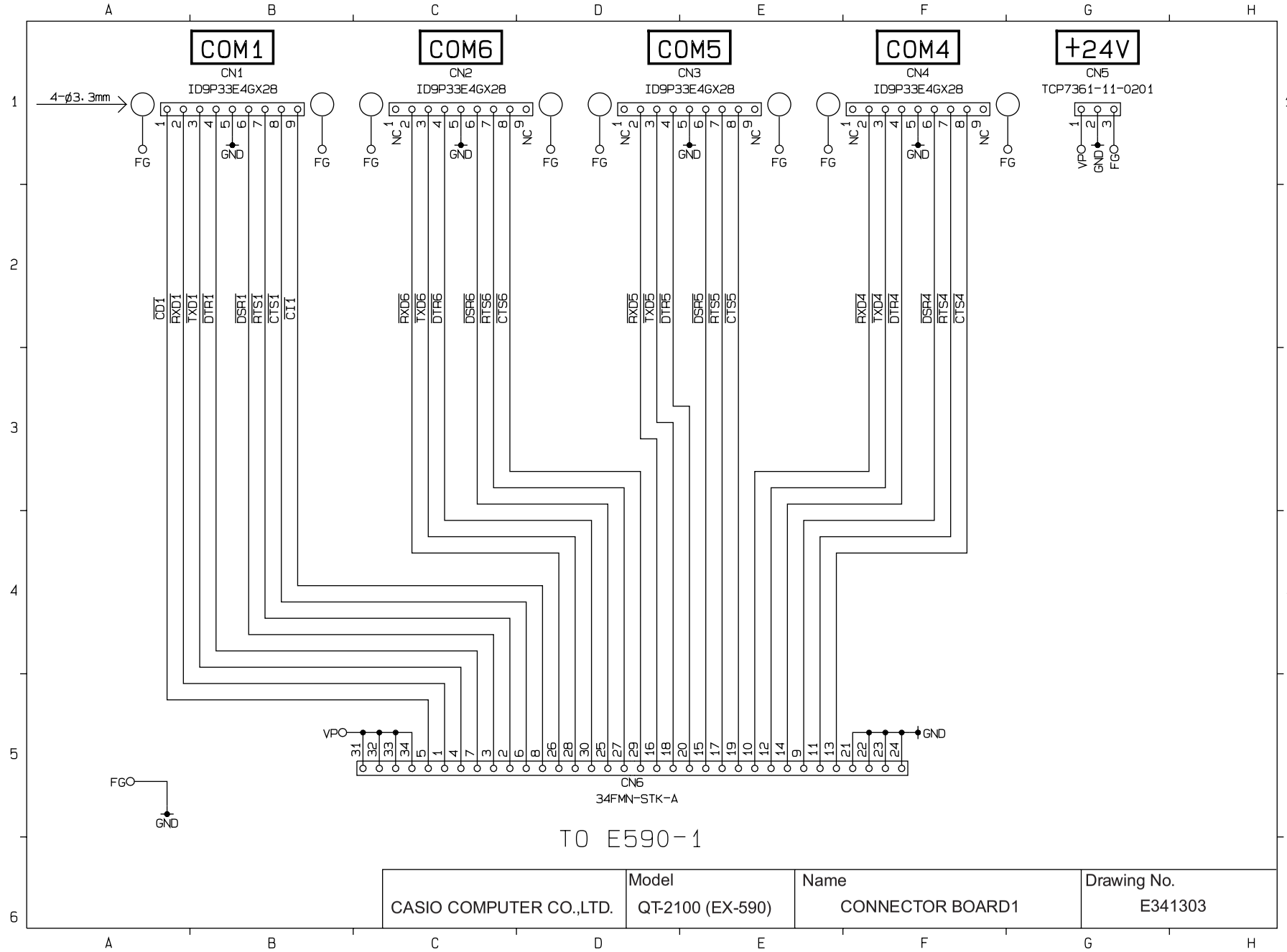
CASIO COMPUTER CO.,LTD.	Model	Board No.	Name	Drawing No.
	QT-2100 (EX-590)	E590-1	BLOCK DIAGRAM [9 / 9]	E240856

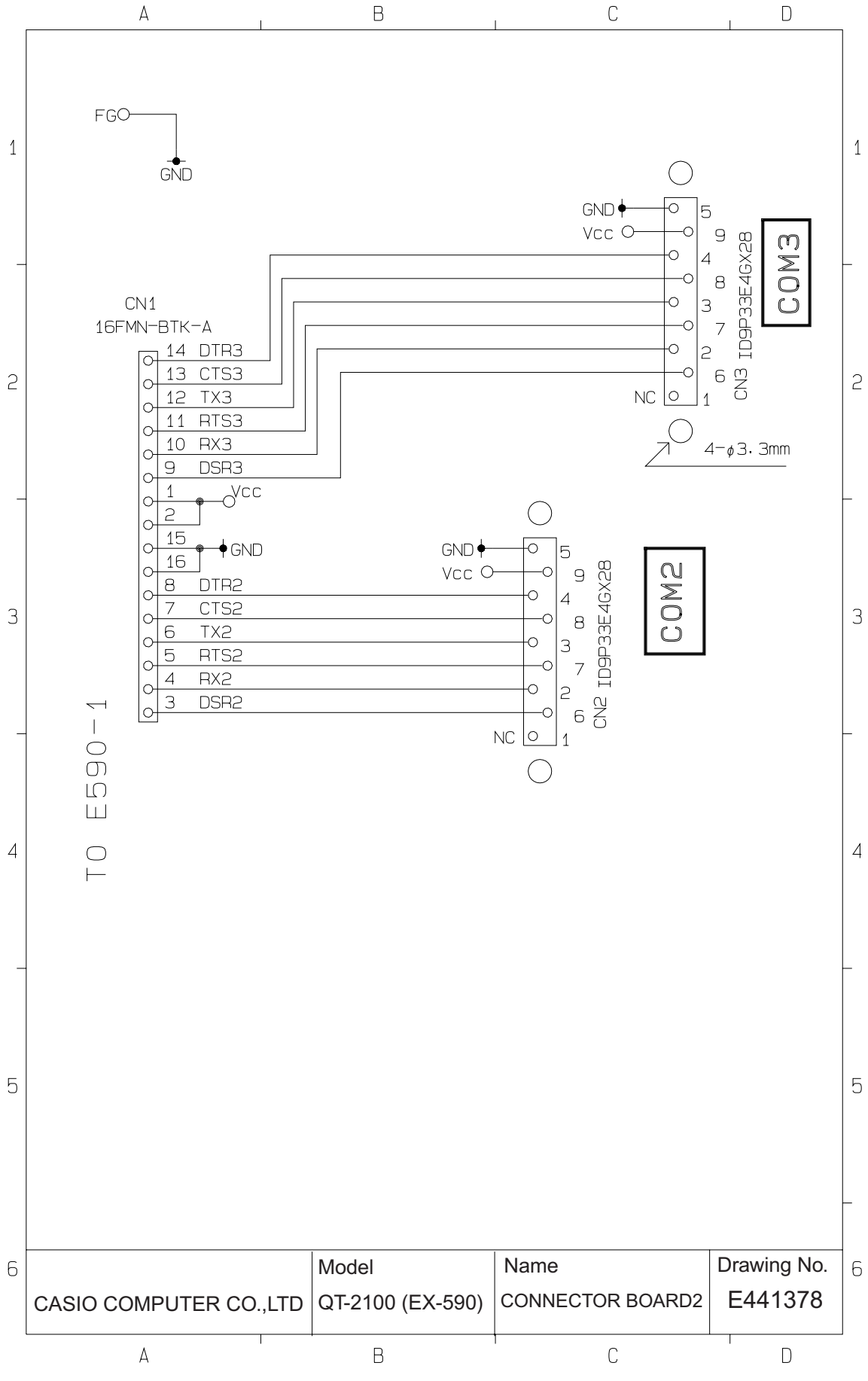


14	28	42	56	70	84	98	112	126	140	154	168	
13	27	41	55	69	83	97	111	125	139	153	167	
12	26	40	54	68	82	96	110	124	138	152	166	
11	25	39	53	67	81	95	109	123	137	151	165	
10	24	38	52	66	80	94	108	122	136	150	164	
9	23	37	51	65	79	93	107	121	135	149	163	
8	22	36	50	64	78	92	106	120	134	148	162	
7	21	35	49	63	77	91	105	119	133	147	161	
6	20	34	48	62	76	90	104	118	132	146	160	
5	19	33	47	61	75	89	103	117	131	145	159	
4	18	32	46	60	74	88	102	116	130	144	158	
3	17	31	45	59	73	87	101	115	129	143	157	
2	16	30	44	58	72	86	100	114	128	142	156	
1	15	29	43	57	71	85	99	113	127	141	155	

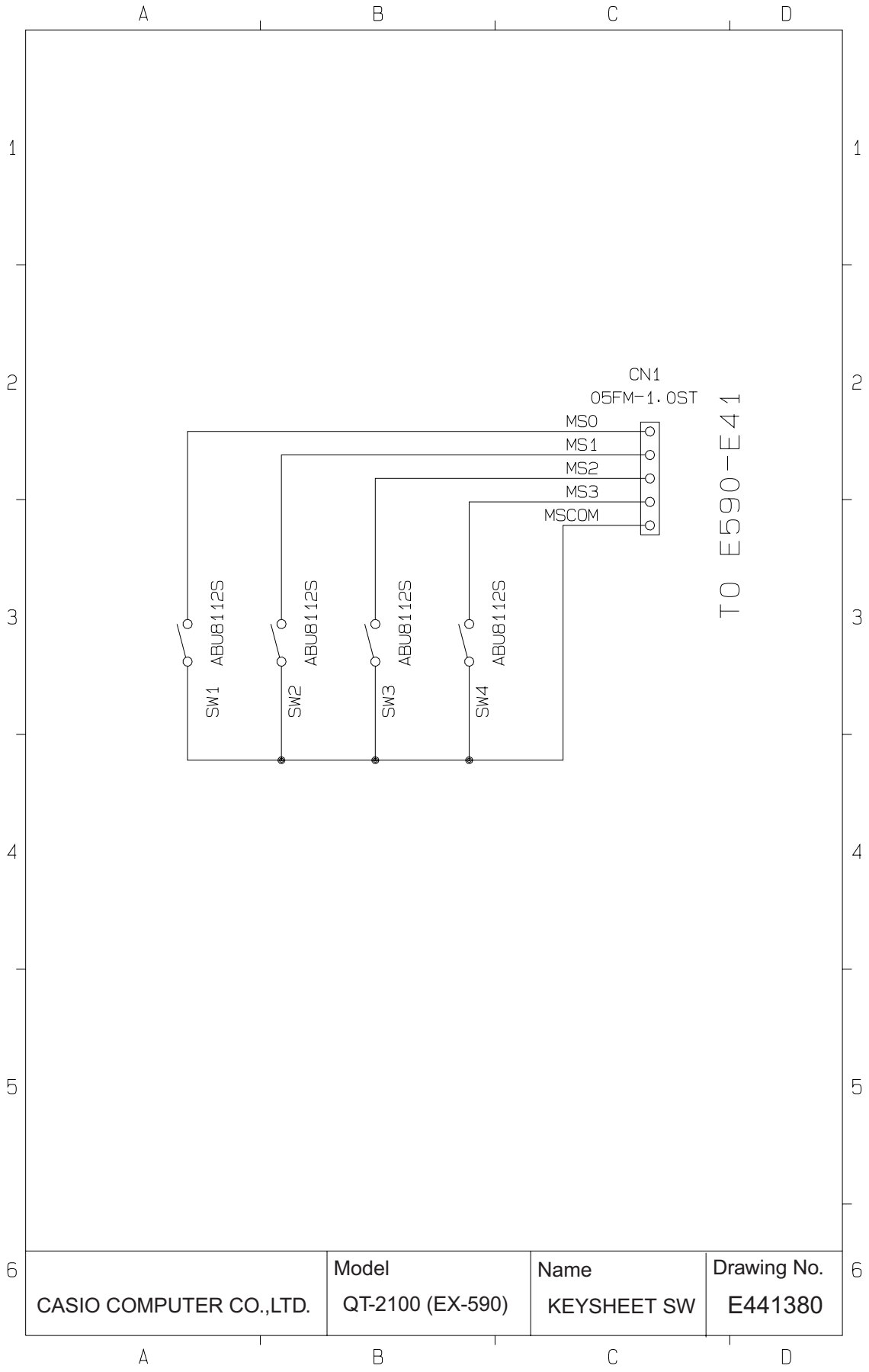


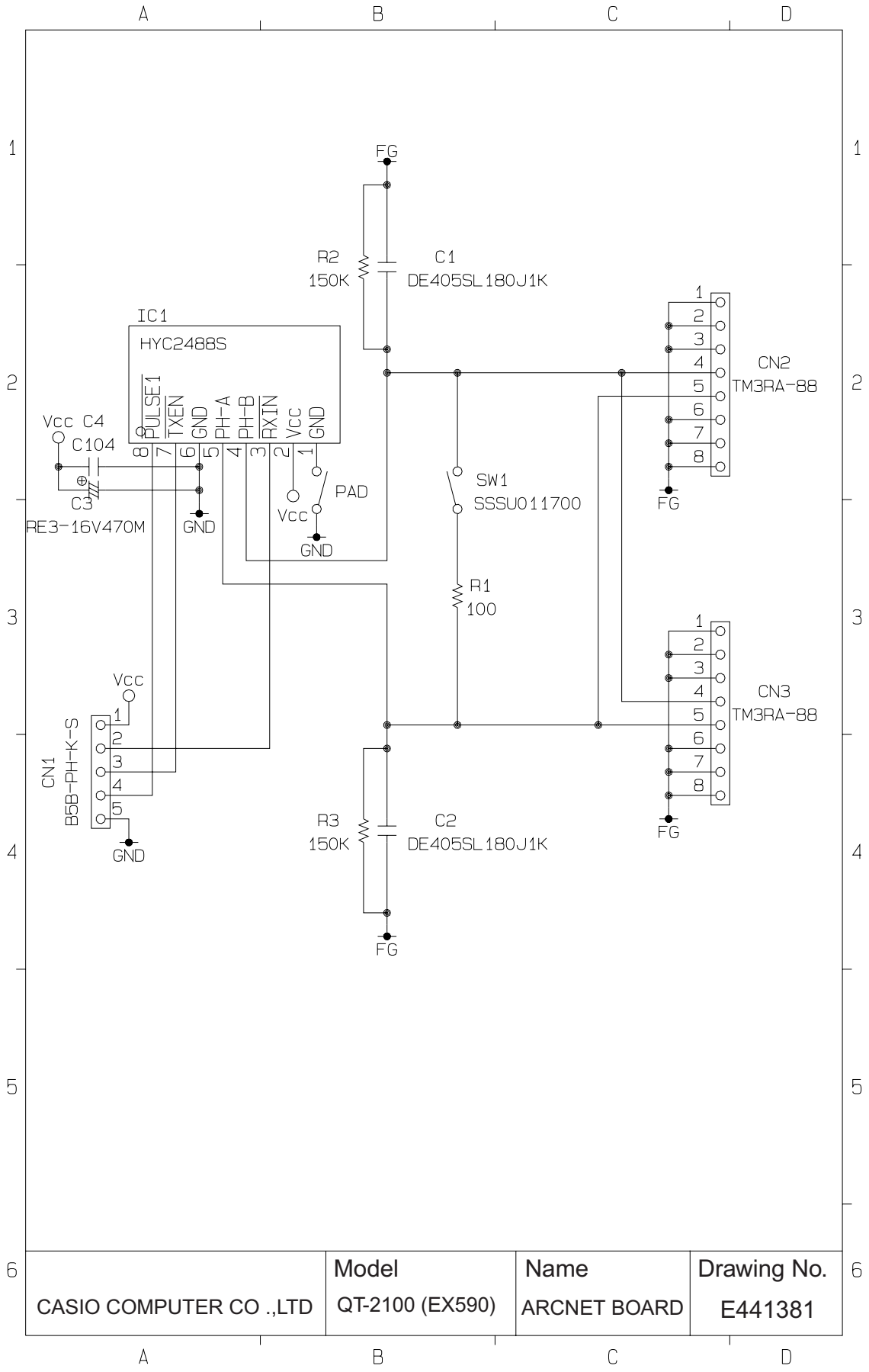
CASIO COMPUTER CO.,LTD.	Model QT-2100 (EX-590)	Name KEY BOARD2	Drawing No. E441379

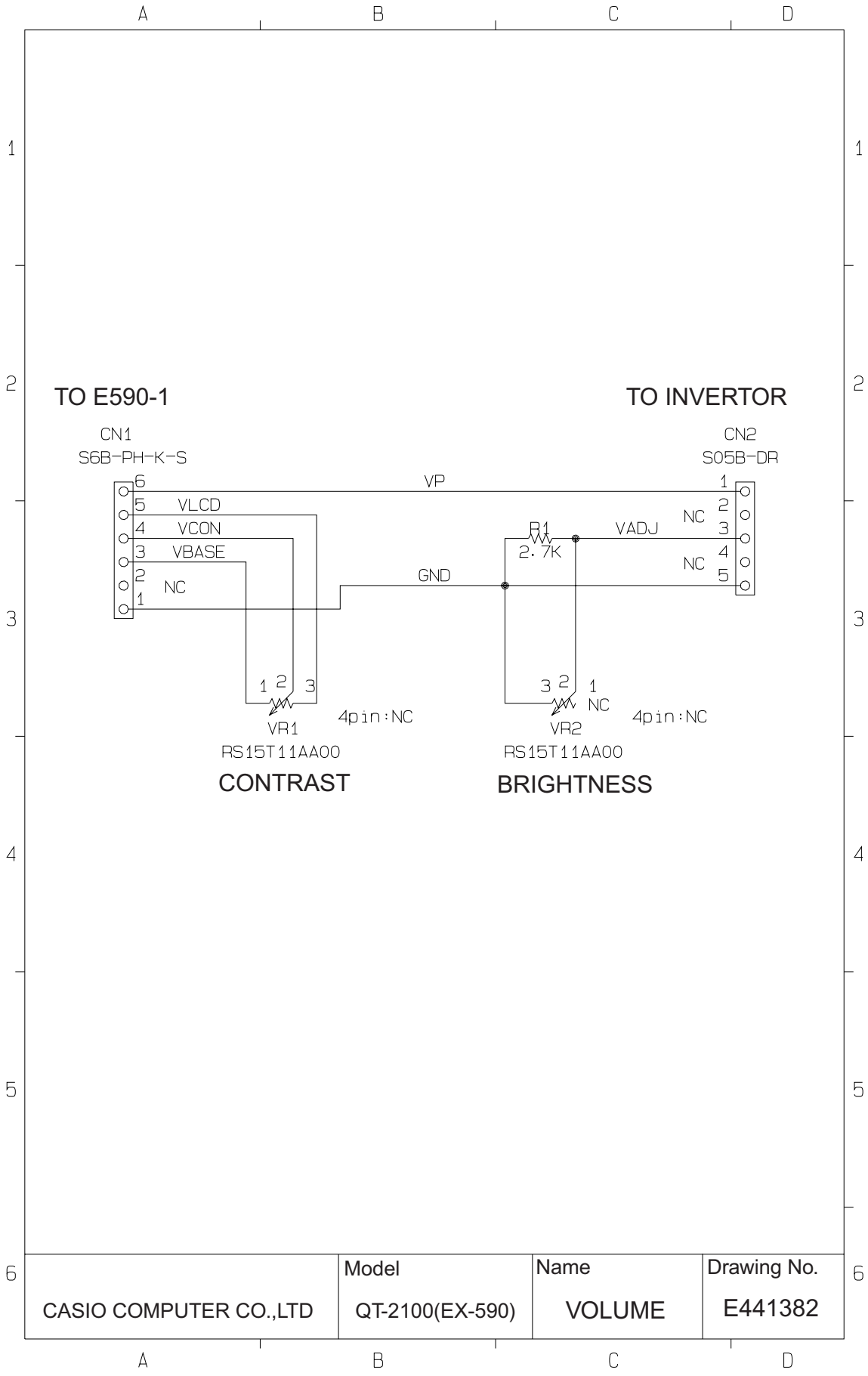

COM1
CN1
ID9P33E4GX28
COM6
CN2
ID9P33E4GX28
COM5
CN3
ID9P33E4GX28
COM4
CN4
ID9P33E4GX28
+24V
CN5
TCP7361-11-0201
4-ø3.3mm
FG
GND
NC
VPO
FGO
CD1
RXD1
TXD1
DTR1
DSR1
RTS1
CTS1
CI1
RXD6
TXD6
DTR6
DSR6
RTS6
CTS6
RXD5
TXD5
DTR5
DSR5
RTS5
CTS5
RXD4
TXD4
DTR4
DSR4
RTS4
CTS4
CN6
34FMN-STK-A
TO E590-1
CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Name
CONNECTOR BOARD1
Drawing No.
E341303



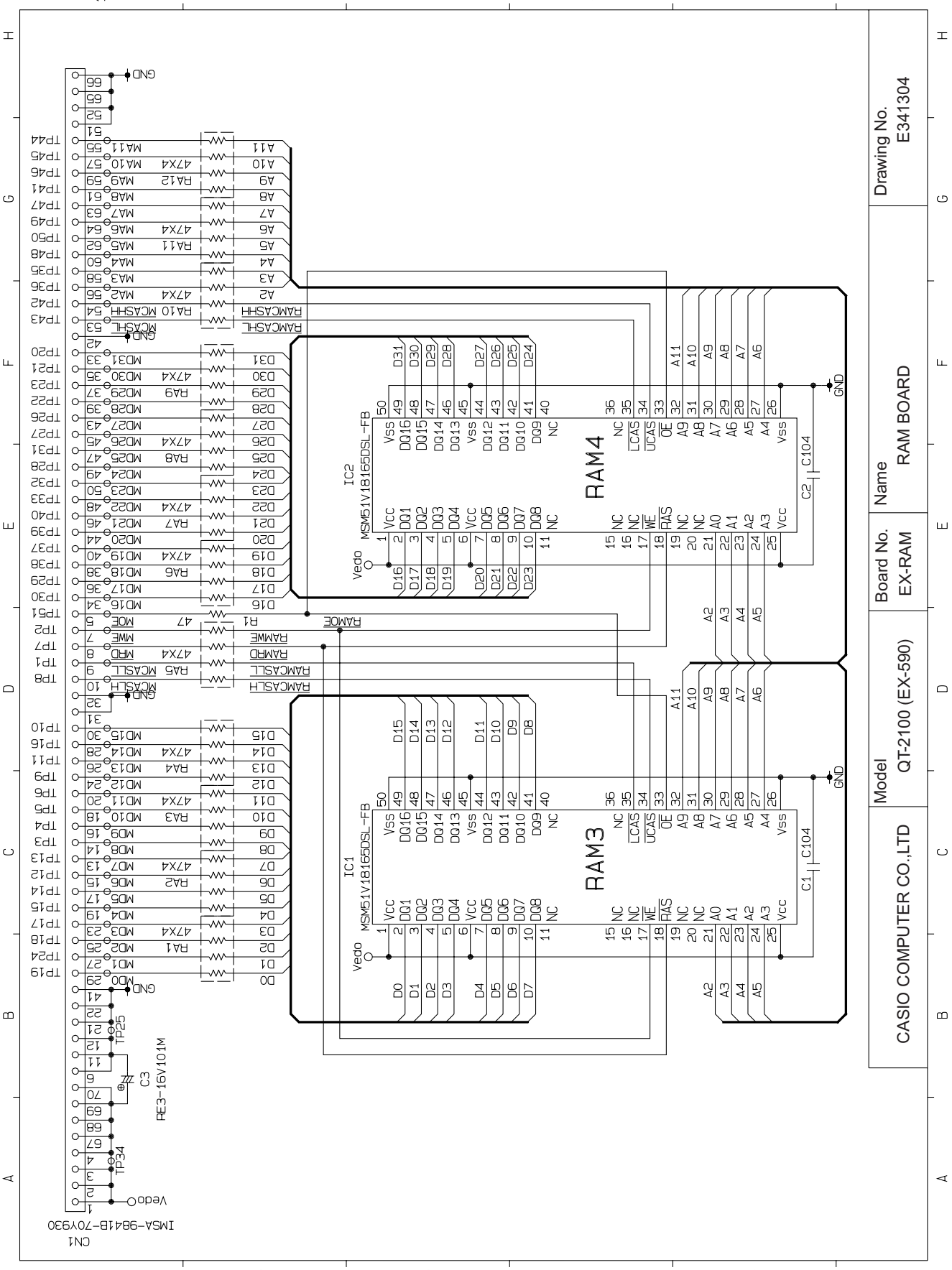
	Model	Name	Drawing No.
CASIO COMPUTER CO.,LTD	QT-2100 (EX-590)	CONNECTOR BOARD2	E441378

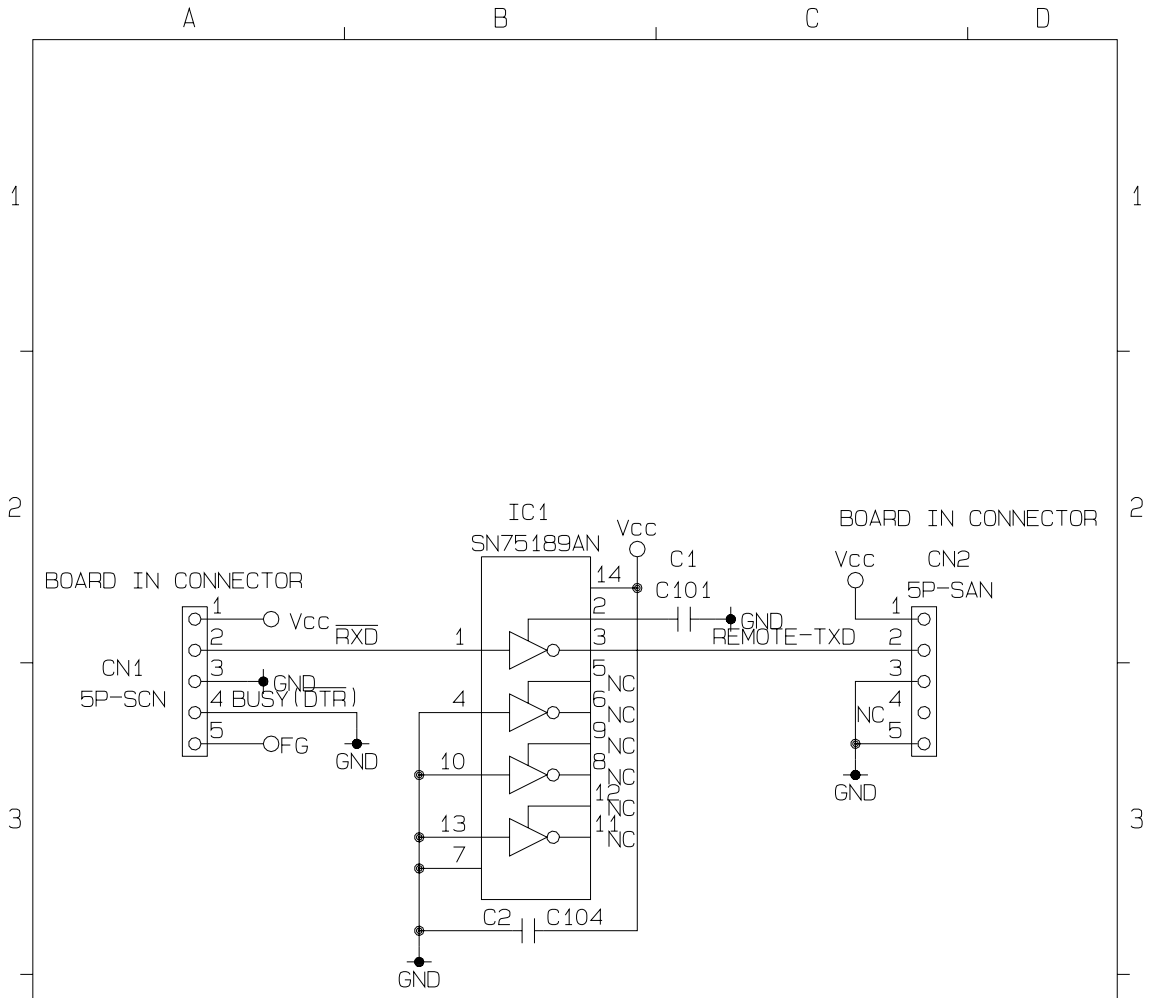

A
B
C
D
1
2
3
4
5
6
CN1
05FM-1.0ST
MS0
MS1
MS2
MS3
MSCOM
SW1 ABU8112S
SW2 ABU8112S
SW3 ABU8112S
SW4 ABU8112S
TO E590-E41
CASIO COMPUTER CO.,LTD.
Model
QT-2100 (EX-590)
Name
KEYSHEET SW
Drawing No.
E441380


A
B
C
D
1
2
3
4
5
6
FG
R2
150K
C1
DE405SL180J1K
IC1
HYC2488S
PULSE1
TXEN
GND
PH-A
PH-B
RXIN
Vcc
GND
Vcc C4
C104
C3
RE3-16V470M
GND
PAD
Vcc
GND
SW1
SSSU011700
R1
100
CN2
TM3RA-88
FG
CN3
TM3RA-88
FG
Vcc
CN1
B5B-PH-K-S
GND
R3
150K
C2
DE405SL180J1K
FG
CASIO COMPUTER CO .,LTD
Model
QT-2100 (EX590)
Name
ARCNET BOARD
Drawing No.
E441381



CASIO COMPUTER CO.,LTD	Model QT-2100(EX-590)	Name VOLUME	Drawing No. E441382


CASIO COMPUTER CO.,LTD
Model
QT-2100 (EX-590)
Board No.
EX-RAM
Name
RAM BOARD
Drawing No.
E341304
RAM4
RAM3
IC2
IC1
MSM51V18165DSL-FB
CN1
IMSA-9841B-70Y930
RE3-16V101M
C1
C2
C3
C104
R1
47
RAMOE
RAMWE
RAMRD
RAMCASLL
RAMCASLH
RAMCASHL
RAMCASHH
MCASLH
MCASLL
MRD
MWE
MOE
MCASHL
MCASHH
RA5
RA7
RA8
RA4
RA2
RA1
RA3
RA6
RA9
RA11
RA10
RA12
47X4
TP25
TP34
Vedo
GND



CASIO COMPUTER CO.,LTD.	Model	Name	Drawing No.
	QT-2100(EX-590)	REMOTE DISP	E441383

14. PARTS LIST

PARTS LIST

MODEL : QT-2100 (EX-590)

CONTENTS

Explode view 91

1. MAIN BLOCK 93
2. LCD BLOCK 96
3. REAR DISPLAY BLOCK 96
4. BUTTON BLOCK 97
5. POWER SUPPLY BLOCK 97
6. DALLAS KEY 97
7. ARCNET IN-LINE BOARD 98
8. CONNECTOR BOARD 98
9. UPPER CASE BLOCK 99
10. LOWER CASE BLOCK 99
11. OTHERS 99

12. REAR DISPLAY 100
13. DRAWER (DL-2780) 101
14. DRAWER (DL-2781) 103
15. DRAWER (DL-2916) 104
16. DRAWER (DL-2917) 105
17. DRAWER (DL-3618) 107
18. DRAWER (DL-3619) 109

NOTES :

1. Price and specifications are subject to change withput prior notice.

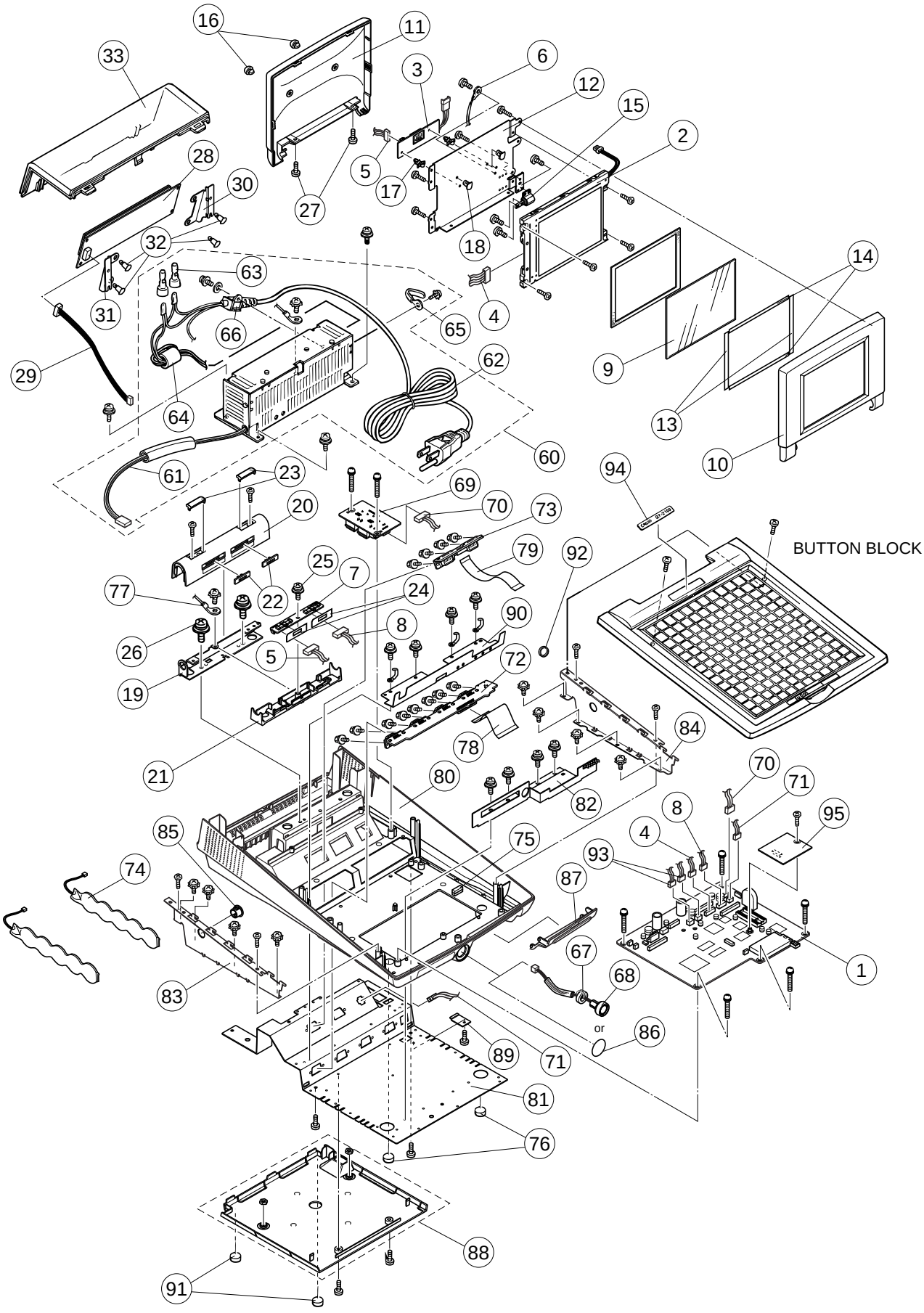
2. As for spare parts order and supply, refer to the “GUIDEBOOK for Spare Parts Supply”, published separately.

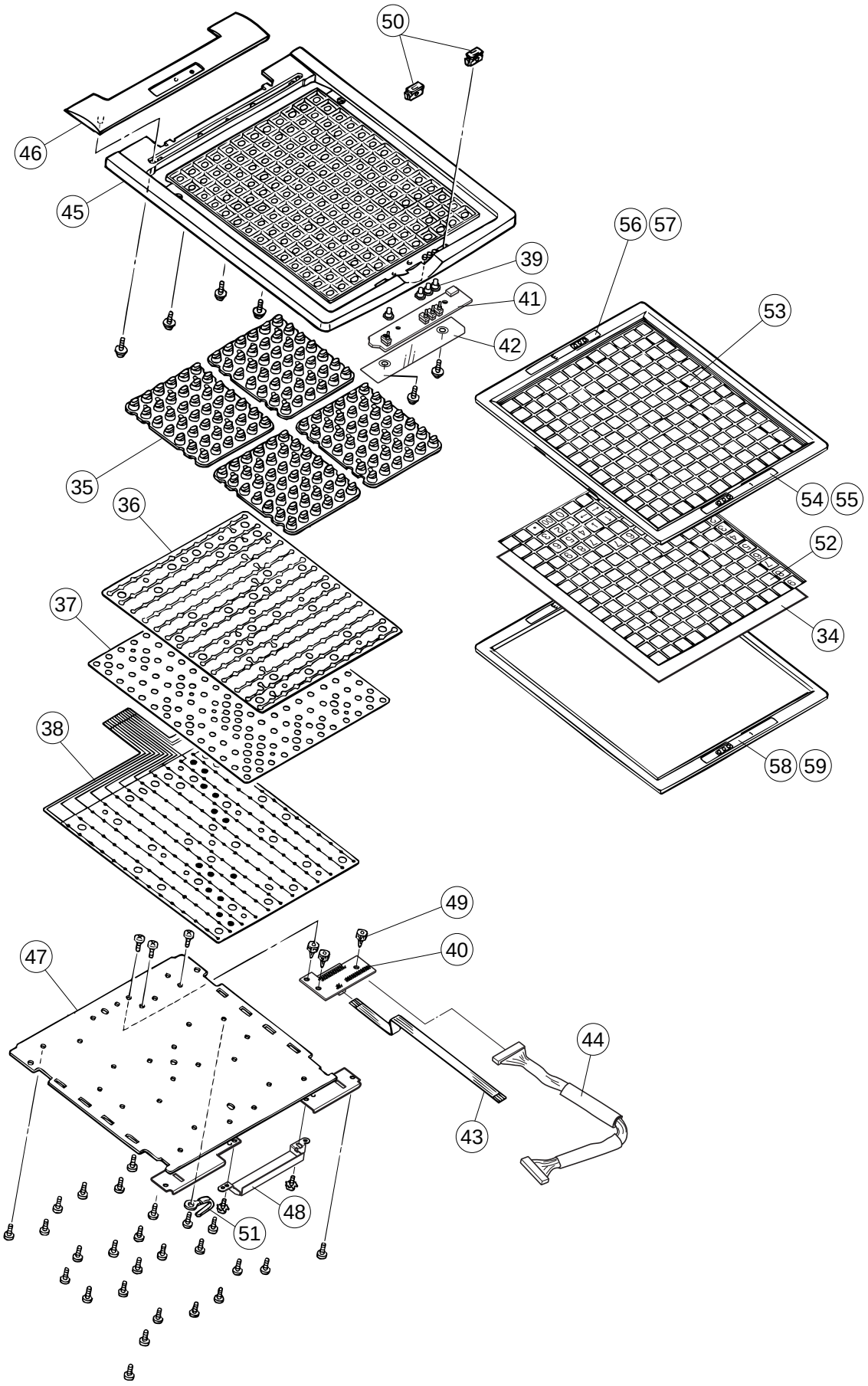
3. The numbers in item column corespond to the same numbers in drawing.

4. CASIO does not supply the spare parts without parts code.

5. Remarks

   Q'ty : Quantity used per unit
   RANK: A = Essential
   B = Stock recommended
   C = Less recommended
   X = No stock recommended


BUTTON BLOCK
or


50
46
45
56
57
39
41
53
42
35
54
55
36
52
37
34
38
58
59
49
40
47
44
43
48
51

N	Item	Code No.	Parts Name	Specification	Q'ty		Price Code	Rank
					USA,Canada and Germany	Other Countries		
		1. MAIN PCB BLOCK						
N	**1**	10073421	PCB ASSY/E590-1	E240831*1	1		EJ	A
N	**1**	10073422	PCB ASSY/E590-1	E240831*2		1	EJ	A
N	IC7	10074040	LSI	HD6417709AF133B	1	1	CT	A
N	IC11	10075914	LSI	UPD784215AGC1698EU	1	1	BN	A
N	IC15	10073986	LSI	UPD65945GJ-P16-JEU	1	1	BU	A
N	IC9	10083006	LSI	MBM29DL324BE90TN-C	1	1	CG	A
N	IC8,12	10074499	LSI	M51V18165DSL-6TKFB	2	2	BT	A
N	IC1	10074500	LSI	LC35256FT-70U-TLM	1	1	BA	A
N	IC4	10074501	LSI	S1D13503F00A100	1	1	CD	A
	IC14	10006024	LSI	COM20019ILJP	1	1	CF	A
N	IC26	10073989	IC/MOS	TC74HC4050AFT	1	1	AF	A
N	IC20,29	10073990	IC/MOS	HD74LV00ATELL	2	2	AB	A
N	IC19,22	10073991	IC/MOS	HD74LV07ATELL	2	2	AD	A
N	IC28	10073992	IC/MOS	HD74LV10ATELL	1	1	AB	A
N	IC18	10073993	IC/MOS	HD74LV1G00ACME	1	1	AA	A
N	IC24	10073994	IC/MOS	HD74LV74ATELL	1	1	AB	A
N	IC27	10073995	IC/MOS	HD74LV86ATELL	1	1	AB	A
N	IC23,25	10073996	IC/MOS	HD74LVC08TELL	2	2	AC	A
N	IC21	10073998	IC/MOS	HD74LVC138TELL	1	1	AE	A
	IC3,5	10005674	IC/MOS	HD74LVC244ATELL	2	2	AF	A
	IC2,6	10005676	IC/MOS	HD74LVC245ATELL	2	2	AF	A
N	IC45,46	10074000	IC/MOS	HD74HCT1G08CME	2	2	AA	A
N	IC17	10074001	IC/MOS	XC6201P192MR	1	1	AC	A
N	IC44	10074002	IC/MOS	XC62EP1902MR	1	1	AC	A
N	IC43	10074003	IC/MOS	XC6365A363MR	1	1	AG	A
	IC40	10007012	IC	MB3800PF	1	1	AO	A
N	IC30	10074004	IC/RESET	S-80130CNMC-JKP-T2	1	1	AC	A
N	IC39	10074005	IC	SN751178NSR	1	1	BG	A
N	IC34,35,38,41,42	10074006	IC	SN75188PWR	5	5	AF	A
N	IC31-33,36,37	10074007	IC	SN75189APWR	5	5	AF	A
	F2,3	30008079	FUSE	430.500	2	2	AD	A
	F1	30007777	FUSE	230.600	1	1	AE	A
	D11,14	23902058	DIODE	1SR154-400TE25	2	2	AB	B
	D9,10,19,20	30007959	DIODE	1SS376TE-17	4	4	AA	B
N	D12,13,17,26	10009218	DIODE	1SS400TE61	4	4	AA	B
N	D4	23900987	DIODE	DAN202K-T146	1	1	AA	B
	D5-8	23900777	DIODE/CHIP ARRAY	IMN10T-108	4	4	AB	B
	D18	23153115	DIODE/ZENER	PTZTE-255.1B	1	1	AB	B
	D21-23	28953130	DIODE/SCHOTTKY BARRIER	RB051L-40TE25	3	3	AC	B
N	D3,15,16,24,25	23903042	DIODE/SCHOTTKY BARRIER	RB521S-30TE61	5	5	AA	B
N	D1,2	23903082	DIODE/SCHOTTKY BARRIER	SB05-05CP-TB	2	2	AB	B
N	Q6	10076309	TRANSISTOR	2SA1729S-TD	1	1	AC	B
N	Q9	10076310	TRANSISTOR	2SA2012-TD	1	1	AC	B
N	Q3,4	10076311	TRANSISTOR	2SD1626-TD	2	2	AC	B
N	Q7	10077387	TRANSISTOR	2SK1920-TL.	1	1	AM	B
N	Q8	10074017	TRANSISTOR	XP162A12A6PR	1	1	AF	B
	Q5	25902697	TRANSISTOR/DIGITAL	DTC114EETL	1	1	AA	B
	Q1,2,10	22592674	TRANSISTOR/DIGITAL	DTC114YETL	3	3	AA	B
N	R180	10059695	THERMISTOR/CHIP	NTH5G16P33B103J07T	1	1	AA	B
N	L1	10074018	INDUCTOR/POWER	CDRH104R220NC-T	1	1	AG	B
N	T1	10076313	TRANSFORMER/DC	CEI128-001	1	1	AT	B
N	X1	10074020	X' TAL/CHIP	MA406-8.25M-10P	1	1	AM	B
N	X2	10079022	X' TAL/CHIP	MC306-12.5/10	1	1	AL	B
N	X5	10074503	CERALOCK/CHIP	CSTCE8M00G55-R0	1	1	AB	B
N	X3	10074504	CERALOCK/CHIP	CSTCR6M00G55-R0	1	1	AB	B
N	X4	10074505	CERALOCK/CHIP	CSTCV12M6T54J-R0	1	1	AC	B
N	X6	10074506	CERALOCK/CHIP	CSTCW20M0X53-R0	1	1	AC	B
N	RA13,15-17,39, 63-66	27958158	RESISTOR/CHIP NETWORK	RAC1005-1014DJT	9	9	AA	C
N	RA7-12,24,35, 40-48,51-54,61,62	27975626	RESISTOR/CHIP NETWORK	RAC1005-1034DJT	23	23	AA	C

N	Item	Code No.	Parts Name	Specification	Q'ty		Price Code	Rank
					USA,Canada and Germany	Other Countries		
N	RA36,37,57,58	27975627	RESISTOR/CHIP NETWORK	RAC1005-1044DJT	4	4	AA	C
N	RA18-21	27975630	RESISTOR/CHIP NETWORK	RAC1005-3304DJT	4	4	AA	C
N	RA59,60	10074008	RESISTOR/CHIP NETWORK	RAC1005-3314DJT	2	2	AA	C
N	RA26-32	27753401	RESISTOR/CHIP NETWORK	RAC1005-4704DJT	7	7	AA	C
N	RA38	27251355	RESISTOR/CHIP NETWORK	RAC1005-4724DJT	1	1	AA	C
N	RA1-6,14,22,23,25, 33,34,49,50,55,56	10074009	RESISTOR/CHIP NETWORK	RAC1005-5634DJT	16	16	AA	C
N	C109	77201631	CAPACITOR/CHIP TANTALUM	SK4-0J106M-RA	1	1	AA	C
N	C39,40,137,139	28953056	CAPACITOR/CHIP TANTALUM	SK4-1A107M-RD0	4	4	AE	C
N	C138	28952541	CAPACITOR/CHIP TANTALUM	SK5-1A106M-RA	1	1	AA	C
N	C2	28077823	CAPACITOR/ELECTROLYTIC	RV-10V221MG68-R	1	1	AB	C
N	C81	10074012	CAPACITOR/ELECTROLYTIC	RV-16V471MH10-R	1	1	AC	C
N	C63,77	10074013	CAPACITOR/ELECTROLYTIC	RV-25V221MG10-R	2	2	AB	C
	C76	28077818	CAPACITOR/ELECTROLYTIC	RV-35V101MG10-R	1	1	AB	C
N	C74	28073641	CAPACITOR/ELECTROLYTIC	RV-50V101MH10-R	1	1	AC	C
N	C62	28077120	CAPACITOR/ELECTROLYTIC	RV2-16V100M-R	1	1	AA	C
	C5,35,38,42,44,79	28073647	CAPACITOR/ELECTROLYTIC	RV2-16V101MS-R	6	6	AA	C
N	C82	28077078	CAPACITOR/ELECTROLYTIC	RV2-16V470M-R	1	1	AA	C
	C60	28077106	CAPACITOR/ELECTROLYTIC	RV2-35V100M-R	1	1	AA	C
	C61	28077099	CAPACITOR/ELECTROLYTIC	RV2-50V100M-R	1	1	AA	C
N	CN16	10074025	CONNECTOR	16FMN-BMT-A-TF	1	1	AD	C
N	CN17	10074026	CONNECTOR	34FMN-BMT-A-TF	1	1	AF	C
N	CN12	10074027	CONNECTOR	AXN380130P	1	1	BE	C
	CN7	77401603	CONNECTOR	B2B-PH-SM3-TB	1	1	AC	C
	CN2	35019394	CONNECTOR	B2B-ZR-SM3-TF	1	1	AB	C
	CN10,11	35021809	CONNECTOR	B3B-PH-SM3-TB	2	2	AC	C
	CN15	35018645	CONNECTOR	B5B-PH-SM3-TB	1	1	AC	C
	CN18	35017546	CONNECTOR	B5B-ZR-SM3-TF	1	1	AC	C
N	CN8	35020374	CONNECTOR	B6B-PH-SM3-TB	1	1	AC	C
N	CN9	10074422	CONNECTOR	DF13C-14P1.25V(21)	1	1	AF	C
N	CN1	10074507	CONNECTOR	FCN-568H050-G/A3	1	1	AX	C
N	CN3	10074034	CONNECTOR	IMSA-9830S-70Y930	1	1	AP	C
N	R102	10074493	METAL OXIDE RESISTOR	ERX1ANJP5R6H	1	1	AA	C
N	C78,80	10073679	AL CAPACITOR	RE3-50V102M-T4	2	2	AD	C
	CN13,19	35005846	CONNECTOR	53253-0210	2	2	AA	C
N	CN5	35802399	CONNECTOR	B32B-PHDSS	1	1	AF	C
	CN14	35802371	CONNECTOR	B4P-VH	1	1	AB	C
	IC10	36106859	SOCKET/IC	DILB32P-8JK		1	AD	C
N	JP1	10073680	CONNECTOR	IMSA-9202B-1-03P-T	1	1	AA	C
	BZ1	32402089	BUZZER	PKM22EPT-2001	1	1	AE	C
N	SW1	10073681	SWITCH/SLIDE	SSSU141500	1	1	AJ	C
N		10073058	SPACER/PCB	E441289-1	1	1	AD	C
N	JP1	30011719	SOCKET	IMSA-9215H-T	1	1	AA	C
N	CN1	10074494	GUIDE	FCN-560HAC	1	1	AP	C
N		59000007	SCREW	3 X 15 ZMC-3	5	5	AA	C
N		10083106	CABLE SUB ASSY/JUMPER	RJE500069*1	1	1	AA	C
	R22-27		RESISTOR/CHIP	MCR01MZSJ000	6	6		X
	R215-218		RESISTOR/CHIP	MCR01MZSJ100	4	4		X
	R107,112-118,176, 187,226-230,235		RESISTOR/CHIP	MCR01MZSJ101	16	16		X
	R206,213,220,236		RESISTOR/CHIP	MCR01MZSJ102	4	4		X
	R13,14,30-32,35,36, 39,40,43,44,47,48, 51,52,55,56,59,60, 63,64,67,68,71,84, 87,88,91-101,103, 108,109,111,123, 124,127,130-138, 153-159,163,166, 171,177,179,189, 193,196,197,200-203,205,208		RESISTOR/CHIP	MCR01MZSJ103	76	76		X

N	Item	Code No.	Parts Name	Specification	Q'ty		Price Code	Rank
					USA,Canada and Germany	Other Countries		
	R207		RESISTOR/CHIP	MCR01MZSJ104	1	1		X
	R12		RESISTOR/CHIP	MCR01MZSJ105	1	1		X
	R181,182,233,234		RESISTOR/CHIP	MCR01MZSJ123	4	4		X
	R225,231		RESISTOR/CHIP	MCR01MZSJ152	2	2		X
	R185,204,210,223		RESISTOR/CHIP	MCR01MZSJ202	4	4		X
	R104,214,219		RESISTOR/CHIP	MCR01MZSJ203	3	3		X
	R2,105,222		RESISTOR/CHIP	MCR01MZSJ331	3	3		X
	R178		RESISTOR/CHIP	MCR01MZSJ332	1	1		X
	R29		RESISTOR/CHIP	MCR01MZSJ471	1	1		X
	R1,110,119-122,128, 162,173,184,186, 188,211,221,232		RESISTOR/CHIP	MCR01MZSJ472	15	15		X
	R224		RESISTOR/CHIP	MCR01MZSJ473	1	1		X
	R167-170,174,175		RESISTOR/CHIP	MCR01MZSJ560	6	6		X
	R3-6,8-11,129,160, 161,183,209,		RESISTOR/CHIP	MCR01MZSJ563	13	13		X
	R212		RESISTOR/CHIP	MCR03EZHJ103	1	1		X
	R83,106		RESISTOR/CHIP	MCR10EZHF15R0	2	2		X
	C33,34,45-55, 64-73,93,98-100,107, 110-113,115-118, 123,124,141		CAPACITOR/CHIP CERAMIC	GRM36CH101J50PT	38	38		X
	C56-59,104,106,119		CAPACITOR/CHIP CERAMIC	GRM36B102K50PT	7	7		X
	C1,3,4,6,9-12,14, 16-32,36,37,41,43, 85-92,94-97,102, 103,105,108, 120-122,125-130, 132-136,140,143		CAPACITOR/CHIP CERAMIC	GRM36F104Z16PT	62	62		X
	C83,84		CAPACITOR/CHIP CERAMIC	GRM39B105K6.3PT	2	2		X
	C7,8,13,15		CAPACITOR/CHIP CERAMIC	GRM36CH150J50PT	4	4		X
	C131		CAPACITOR/CHIP CERAMIC	GRM36B152K50PT	1	1		X
	C114		CAPACITOR/CHIP CERAMIC	GRM36F473Z16PT	1	1		X
			SCREW	3 X 5 ZMC-3	1	1		X
			SCREW	2 X 5 ZMC-3	2	2		X
			SCREW	2 NI	2	2		X
	2. LCD BLOCK							
N	**2**	10071233	LCD/MODULE	LRUBL6168A	1	1	DR	A
N	**3**	10073675	INVERTER/CFL	PS-10175-002	1	1	CI	A
N	**4**	10076314	CABLE SUB ASSY LCD-14	E441314A-1	1	1	AT	C
N	**5**	10072963	CABLE SUB ASSY/DR-05	E340541-2	1	1	AH	C
N	**6**	10072962	WIRE SUB ASSY/FG	E310997C-30	1	1	AD	C
N	**7**	10074466	PCB ASSY/E590-VOL	E441347*1	1	1	BT	C
N	VR1,2	10073687	SLIDE VOLUME	RS15T11AA00	2	2	AH	C
N	CN2	35022019	CONNECTOR	S05B-DR	1	1	AA	C
N	CN1	35017322	CONNECTOR	S6B-PH-K-S	1	1	AA	C
N	**8**	10073062	CABLE SUB ASSY/VOL-06	E441313-1	1	1	AG	C
	9	62477281	PANEL/LCD	E340436-1	1	1	BG	C
N	**10**	10072952	CASE/LCD F	E140455-2	1	1	AT	C
N	**11**	10076262	CASE/LCD R	E140415A-2	1	1	AU	C
N	**12**	10065575	CHASSIS/LCD	E240796-1	1	1	AT	C
	13	62480878	CUSHION/LCD VE580	E440561-1	2	2	AA	C
	14	62480879	CUSHION/LCD HE580	E440562-1	2	2	AB	C
	15	10042373	SHAFT	KH62B075L	1	1	BT	C
N	**16**	10073043	RUBBER/LCD	E441186A-2	2	2	AF	C
		10042372	BAND/WATERPROOF	E441189-1	1	1	AA	C
		10042350	BAND/WATERPROOF L	E441193-1	2	2	AA	C
N	**17**	10069256	SPACER/PCB	MSPLS-3U	2	2	AA	C
N	**18**	10075127	SPACER/PCB	RSPS-6U	2	2	AA	C
		55600368	TIE/INSULOCK	T-18S	1	1	AA	C
N	**19**	10064968	PLATE/FIX LCD	E341122B-1	1	1	AU	C
N	**20**	10072958	CASE/HINGE UPPER	E240798-1	1	1	AF	C

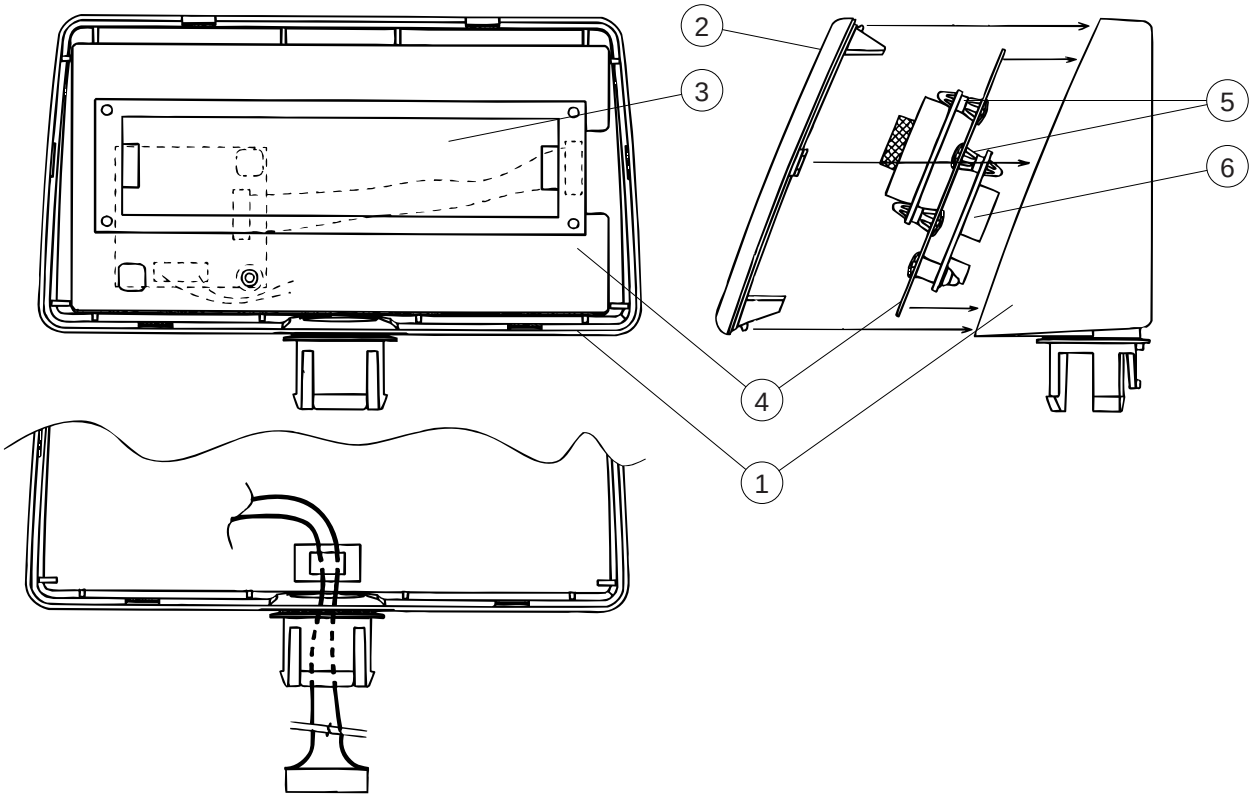
N	Item	Code No.	Parts Name	Specification	Q'ty		Price Code	Rank
					USA,Canada and Germany	Other Countries		
N	**21**	10072959	CASE/HINGE LOWER	E240799-1	1	1	AD	C
N	**22**	10072974	KEYNOB/SLIDE	E341219-1	2	2	AC	C
N	**23**	10072977	COVER/SCREW	E341121-2	2	2	AC	C
N	**24**	10073049	SHEET	E441273-1	2	2	AA	C
N	**25**	59000007	SCREW	3 X 15 ZMC-3	1	1	AA	C
N	**26**	10073667	SCREW	4 X 14 ZMC-3	2	2	AA	C
	27	10077957	SCREW	3 X 4 PLASTIC	2	2	AA	C
			SCREW	3 X 5 ZMC-3	7	7		X
			SCREW	3 X 8 NI	4	4		X
			SCREW	2.6 X 8 ZMC-3	4	4		X
	3. BUTTON BLOCK and UPPER BLOC							
	33	10042392	COVER/REAR	E140127B-2	1	1	BH	C
N	**34**	10076271	SHEET PGM/E590	E240301B-7	1	1	AD	A
	35	62477309	RUBBER/CONTACT E580	E340446-1	4	4	AT	A
	36	62477204	SHEET/COMMON E580	E240296-1	1	1	AT	A
	37	62480898	SPACER/E580	E240297A-1	1	1	AM	C
	38	62477218	FPC/E580	E240298-1	1	1	AY	C
N	**39**	62480770	BUTTON/DETECTION	E440387A-1	4	4	AA	B
	40	10074460	PCB ASSY/E590-E41	E441345*1	1	1	BN	C
N	CN3	10073692	CONNECTOR	05FM-1.0ST	1	1	AB	C
N	CN2	10073693	CONNECTOR	S32B-PHDSS	1	1	AF	C
	CN1	35005848	CONNECTOR	HLEM26R-1	1	1	AC	C
	41	10074464	PCB ASSY/E590-E42	E441346*1	1	1	BU	C
N	CN1	10073692	CONNECTOR	05FM-1.0ST	1	1	AB	C
	SW1-4	30007931	SWITCH / PUSH	ABU8112S	4	4	AF	B
N	**42**	10073060	PLATE/INSULATION E4-2	E441300-1	1	1	AA	C
N	**43**	10073046	CABLE/FFC JOINER	E441270-3	1	1	AC	C
N	**44**	10073067	CABLE SUB ASSY/KEY	E441318-1	1	1	BB	C
N	**45**	10072893	FRAME/KEYBOARD	E140104A-2	1	1	BF	C
N	**46**	10076264	HOLDER/KEYBOARD	E240342A-2	1	1	AK	C
N	**47**	10072968	KB CHASSIS SUB ASSY	E341228*1	1	1	AY	C
N	**48**	10072979	COVER/SWITCH	E341223-1	1	1	AH	C
	49	55001683	SPACER/TAPPING CARD	KGTS-4K	3	3	AC	C
	50	55001690	MAGNET	B-MMC12	2	2	AN	C
N	**51**	31206121	COACHING CLIP	CS-2-U	1	1	AA	C
		55600368	TIE/INSULOCK	T-18S	1	1	AA	C
N	**52**	10042323	SHEET MENU	E240301A-5	1	1	AD	C
	53	10042349	COVER/SHEET	E240724-1	2	2	AY	C
N	**54**	10073033	PLATE/E590-1	E440401A-9	1	1	AG	C
N	**55**	10073034	PLATE/E590-2	E440401A-10	1	1	AG	C
N	**56**	10073035	PLATE/E590-3	E440401A-11	1	1	AG	C
N	**57**	10073036	PLATE/E590-4	E440401A-12	1	1	AG	C
N	**58**	10072964	SHEET FRAME SUB ASSY/1-3	E341123A*5	1	1	BA	C
N	**59**	10072965	SHEET FRAME SUB ASSY/2-4	E341123A*6	1	1	BA	C
			SCREW	3 X 5 ZMC-3	7	7		X
			SCREW	3 X 6 ZMC-3	29	29		X
			SCREW	3 X 8 PAI 8 ZMC-3	6	6		X
			SCREW	3 X 6 ZMC-3	2	2		X
			SCREW	3 X 8 NI	2	2		X
	4. ARCNET IN-LINE BOARD							
N	**69**	10074459	PCB ASSY/E590-ARC	E441344*1	1	1	DN	A
N	IC1	10073682	IC	HYC2488S	1	1	DG	A
N	SW1	10073694	SLIDE SWITCH	SSSU011700	1	1	AF	B
N	C4	10073688	AL CAPACITOR	RE3-16V470M	1	1	AA	C
N	CN2,3	10073685	CONNECTOR	TM3RA-88	2	2	AZ	C
N	CN1	35016944	CONNECTOR	B5B-PH-K-S	1	1	AA	C
N	**70**	10073064	CABLE SUB ASSY/ARC-05	E441315-1	1	1	AE	C
	71	10005683	INLINE CONNECTOR SUB ASSY	E440720*2	1	1	AF	C
	R1		REGISTOR/CHIP	RD25SM10-6101J	1	1		X
	R2,3		REGISTOR/CHIP	R25-154-K-S	2	2		X
	C1,C2		CAPACITOR/CHIP CERAMIC	DEA1X3A180JC1B	2	2		X
	C3		CAPACITOR/CHIP CERAMIC	ECQ-V1H-104-JZW	1	1		X
N		10073666	SCREW	3 X 20 NI	2	2	AA	C

N	Item	Code No.	Parts Name	Specification	Q'ty		Price Code	Rank
					USA,Canada and Germany	Other Countries		
	5. CONNECTOR BOARD							
	72	10073423	PCB ASSY/E590-CNB	E341263*1	1	1	BW	C
N	CN6	10073690	CONNECTOR	34FMN-STK-A	1	1	AC	C
N	CN5	30006937	CONNECTOR	TCP7361-11-0201	1	1	AH	C
	CN1-4	30007917	CONNECTOR	ID9P33E4GX28	4	4	AK	C
	73	10074458	PCB ASSY/E590-CNB2	E441343*1	1	1	AX	C
N	CN1	10073691	CONNECTOR	16FMN-BTK-A	1	1	AC	C
	CN2,3	30007917	CONNECTOR	ID9P33E4GX28	2	2	AK	C
	6. LOWER CASE BLOCK							
N	**74**	10074896	LITHIUM BATTERY	VL3032 / SGA	1	1	CN	A
N	**75**	10074895	SPACER/MAIN PCB E590	E441356-1	2	2	AA	C
	76	62466529	RUBBER/FOOT	E412136-1	2	2	AD	C
N	**77**	62479710	WIRE SUB ASSY(B)/FG	E310997B-28	1	1	AE	C
N	**78**	10073044	CABLE/FFC JOINER	E441270-1	1	1	AD	C
N	**79**	10073045	CABLE/FFC JOINER	E441270-2	1	1	AC	C
N	**80**	10072954	LOWER CASE/E590	E140459-1	1	1	BU	C
N	**81**	10072953	CHASSIS/E590	E140458-1	1	1	BW	C
N	**82**	10074898	CHASSIS F SUB ASSY	E341231A*1	1	1	AV	C
N	**83**	10072960	CHASSIS/L E590	E240800-1	1	1	AO	C
N	**84**	10072961	CHASSIS/R E590	E240801-1	1	1	AO	C
N	**85**	55001887	ONE TOUCH BUSH	TB-0813	1	1	AA	C
N	**86**	10073057	PLATE/DALLAS	E441283-1	1	1	AA	C
N	**87**	10072980	COVER/CARD	E341224-1	1	1	AE	C
N	**88**	10072982	COVER SUB ASSY/CABLE	E341268*1	1	1	BD	C
N	**89**	10073056	COVER/SWITCH	E441278-1	1	1	AB	C
N		10073059	PLATE/FIXED CABLE	E441290-1	1	1	AE	C
N	**90**	10072976	CHASSIS/B E590	E341221-1	1	1	AK	C
N	**91**	10078374	RUBBER ASSY/FOOT	RJE500009-001	1	1	AD	C
		55002010	COACHING CLIP	CS-4U	1	1	AA	C
			SCREW	4 X 8 PAI 8 ZMC-3	1	1		X
			SCREW	4 X 5 ZMC-3	1	1		X
			SCREW	3 X 8 ZMC-3	9	9		X
			SCREW	3 X 6 ZMC-3	9	9		X
			SCREW	3 X 5 ZMC-3	5	5		X
			SCREW	3 X 8 NI	2	2		X
			SCREW	3 X 6 ZMC-3	2	2		X
	7. OTHER							
	92	36375230	CORE/FERRITE	TR-25-15-12	1	1	AF	C
	93	62481489	DRAWER CABLE SUB ASSY	E440737*1	1	1	AC	C
N	**94**	10073061	NAME PLATE/QT-2100	E441305-1	1	1	AH	C
		55600511	TIE/INSULOCK	BK-1	1	1	AA	C

N	Item	Code No.	PARTS NAME	Specification	Q'ty				Price Code	Rank
					Plug Type					
					UK	Europe	Australia	USA		
	8. POWER SUPPLY BLOCK									
N	**60**	10073424	POWER SUPPLY ASSY	E240839*1		1			DP	C
N	**60**	10073425	POWER SUPPLY ASSY	E240839*2				1	DO	C
N	**60**	10079264	POWER SUPPLY ASSY	E240839*3	1				DP	C
N	**60**	10079265	POWER SUPPLY ASSY	E240839*4			1		DO	C
N		10073695	SWITCHING POWER SUPPLY UNIT	MPW6616(200V)	1	1	1		DE	A
N		10073697	SWITCHING POWER SUPPLY UNIT	MPW6716(100V)				1	DD	A
N		10075130	SWITCH/POWER	SDDJE30300	1	1	1	1	AP	B
N	**61**	10073066	POW-04 SUB ASSY	E441317-1	1	1	1	1	AH	C
N		10073705	CABLE SUB ASSY/SW-BL	E441323*2	1	1	1	1	AB	C
N		10075128	CABLE SUB ASSY /SW-GL	E441323*4	1	1	1		AB	C
N		10075129	CABLE SUB ASSY/SW-BLU	E441323*5				1	AB	C
N		35800989	FLAT TERMINAL	235830-23	2	2	2	2	AA	C
	62	62214802	CORD/POWER	M2511		1			BC	C
	62	37010242	CORD/POWER	MP5004	1				BO	C
	62	37004283	CORD/POWER	M3203			1		AZ	C
	62	10023027	CORD/POWER	PS204-A				1	AR	C
	63	55300526	CABLE JOINT	CE2	2	2	2	2	AA	C
N	**64**	30008017	CORE/FERRITE	RI-12-15-8.5	1	1	1	1	AB	C
N		10073700	BUSH/CABLE	2865 OCB-375	2	2	2	2	AB	C
N	**65**	31206121	COACHING CLIP	CS-2-U	1	1	1	1	AA	C
N		10073698	CHASSIS/POWER SUPPLY UNIT	P42-10055-006	1	1	1	1	AZ	C
N		10073699	COVER/POWER SUPPLY UNIT	P42-10055-007	1	1	1	1	BA	C
N		10072981	PLATE/EARTH	E341254-1	1	1	1	1	AE	C
N	**66**	62477323	CABLE CLAMP	E440375-1	1	1	1	1	AC	C
			SCREW	3 X 5 ZMC-3	2	2	2	2		X
			SCREW	4 X 5 ZMC-3	1	1	1	1		X
			SCREW	3 X 6 ZMC-3	8	8	8	8		X

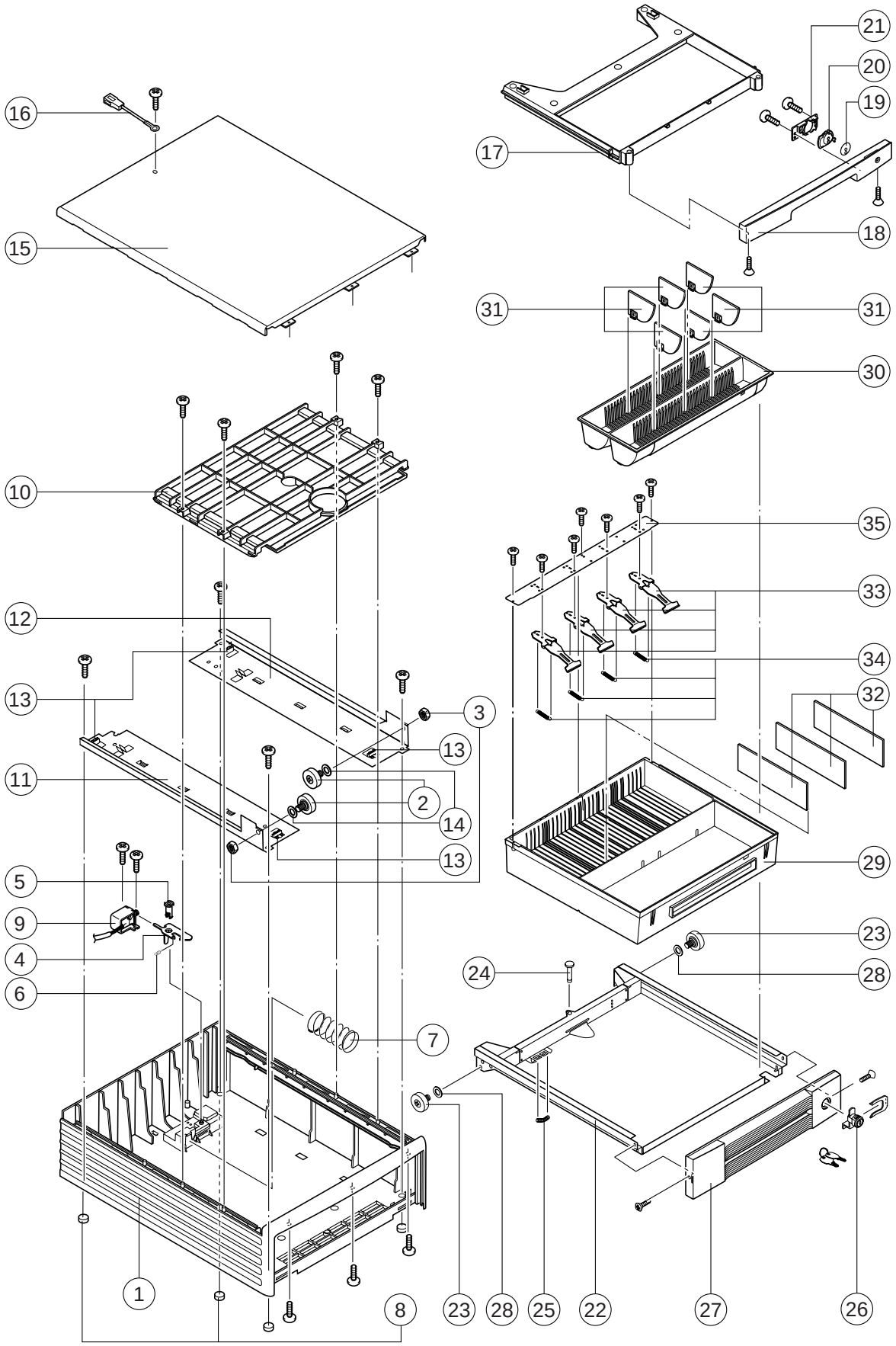
N	Item	Code No.	PARTS NAME	Specification	Q'ty	Price Code	Rank
	9. RAM BOARD (Option)						
N	**95**	10073429	RAM ASSY/E590	E441306*1	1	CY	C
	C3	10074508	AL CAPACITOR	RE3-16V101M-G10	1	AA	C
N	IC1,IC2	10074499	LSI	M51V18165DSL-6TKFB	2	BT	A
N	RA1-12	27753401	RESISTOR/CHIP NETWORK	RAC1005-4704DJT	12	AA	C
	CN1	10073702	CONNECTOR	IMSA-9841B-70Y930	1	AP	C
	R1		RESISTOR/CHIP	MCR01MZSJ470	1		X
	C1,C2		CAPACITOR/CHIP CERAMIC	GRM36F104Z16PT	2		X
	10. REAR DISPLAY BLOCK (USA : Standard , Other Countries : Option)						
N	**28**	10073663	REAR DISPLAY MODULE	CU20029SCPB-W31A	1	DN	A
N	**29**	10075915	CABLE SUB ASSY/REAR-05	E441316A-1	1	AE	C
N	**30**	10073047	FRAME/REAR L	E441271-1	1	AI	C
N	**31**	10073048	FRAME/REAR R	E441272-1	1	AI	C
N	**32**	10073664	SPACER/PCB	RSPLS-4MU	1	AA	C
	11. DALLAS KEY (Germany : Standard , Other Countries : Option)						
N	**67**	10073671	CORE/FERRITE	TR-20-10-10	1	AD	C
N	**68**	10073426	DALLAS CABLE ASSY	E441328*1	1	CD	C
N		10079263	DALLAS KEY ASSY/6PCS	RJE500025*1	6	DA	C

12. REMOTE DISPLAY



N	Item	Code No.	Parts Name	Specification	Q'ty	Price code	Rank
	1	62480606	Display Case	E110169-2	1	AT	C
	2	62480613	Display Window	E110170-7	1	AT	C
N	3	10083195	Display Module	CU20029SCPB-W32A	1	DN	A
N	4	10072973	Chassis/RMT	E341217-1	1	AR	C
N	5	10073664	Spacer/PCB	RSPLS-4MU	6	AA	X
N	6	10073069	Cable Sub Assy/RMT1	E441320-1	1	AT	C
N	7	10073070	Cable Sub Assy/RMT2	E441321-1	1	AV	C
N	8	10073431	PCB Assy/RMT	E441310*1	1	ER	C
N		10074509	Capacitor/Ceramic	DD104-63B101K50	1	AA	C
		28203233	Capacitor/TF	ECQ-V1H104JZW	1	AA	C
		21130217	IC	SN75189AN	1	AE	A

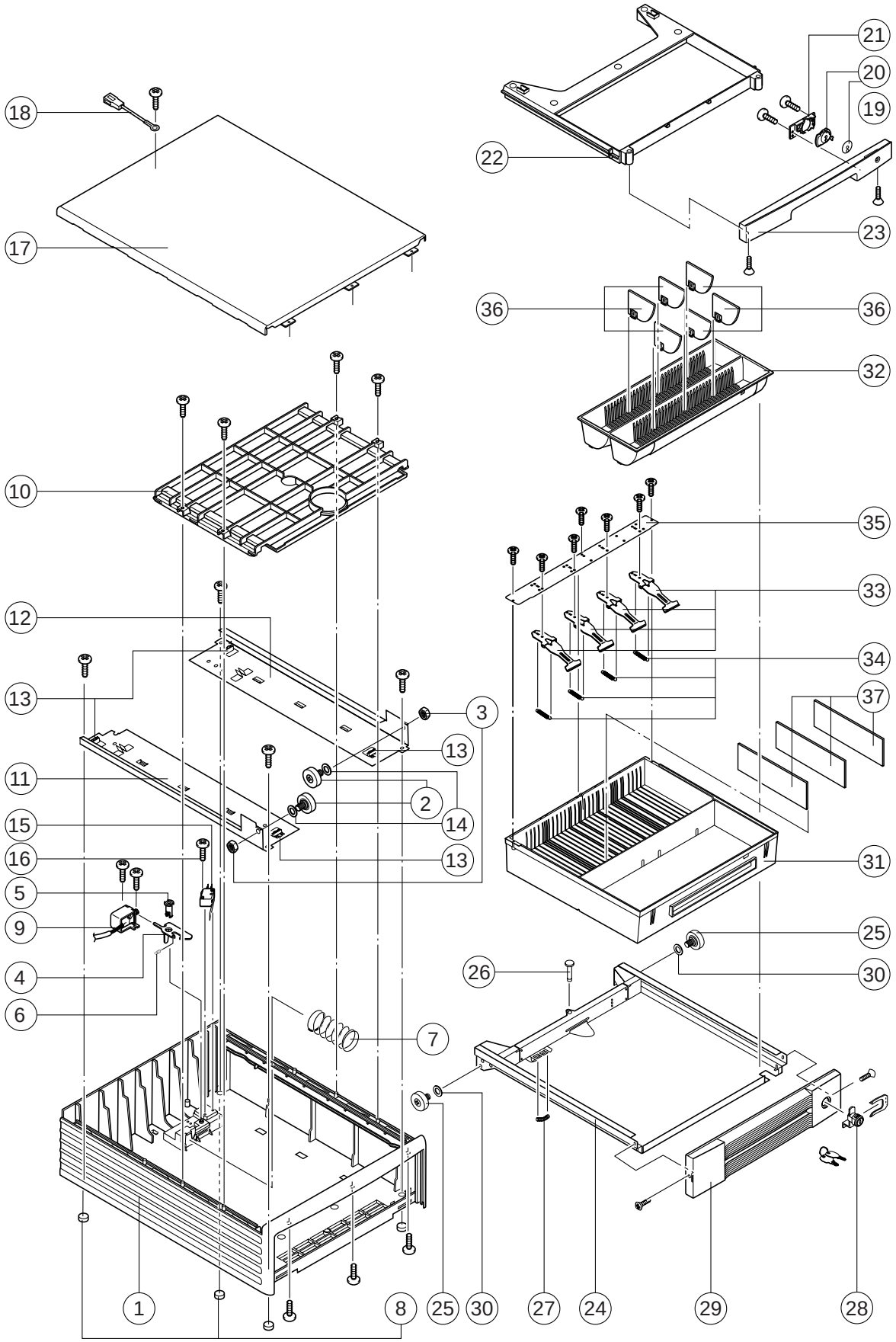
13. DRAWER (DL-2780)



DL-2780(M type) Europe, Other countries

N	Item	Code No.	Parts Name	Specification	Qt'y	Price code	Rank
	1. MAIN CASE BLOCK						
N	**1**	10078897	CASE/MAIN	E140494-1	1	BS	X
	2	55000619	ROLLER/DELRIN	DR-19B1	2	AG	B
N	**3**	10079066	NUT	6 ZMC-3	2	AA	X
N	**4**	10078764	LEVER/HOOK	E341286-1	1	AA	C
N	**5**	10078754	AXIS/HOOK LEVER	E341241-1	1	AA	C
			SCREW	3X8 ZMC-3	4		X
N	**6**	10080393	SPRING/LOCK	RJE500007-001	1	AA	C
	7	62465010	SPRING/PRESS	E412069-1	1	AA	C
	8	62466529	RUBBER/PAD	E412136-1	4	AD	C
N	**9**	10080421	SOLENOIDO SUB ASSY	E341301*005	1	BC	B
N	**10**	10078901	COVER/UPPER	E140498-1	1	AN	X
N	**11**	10078759	RAIL/MLED18	E240841-1	1	AQ	C
N	**12**	10078760	RAIL/MRED18	E240842-1	1	AQ	C
N	**13**	10080450	RUBBER/DUMPER	RJE500005-001	4	AB	X
			SCREW	4X10 ZMC-3	6		X
N	**14**	10079068	WASHER	6X13X1.0 ZMC-3	2	AA	X
N	**15**	10078882	COVER/TOP	E240850-2	1	BZ	X
			SCREW	3X8 NI	3		X
N		10080445	LABEL/DL-2780	E341256-16	1	AA	X
	16	62457930	FG LEAD ASSY	E411996*1	1	AF	C
			SCREW	3X8 ZMC-3	1		X
			WASHER	4	1		X
	2. UPPER DRAWER						
N	**17**	10078898	DRAWER/UPPER	E140495-1	1	AT	X
N	**18**	10078899	PANEL/FRONT	E140496-1	1	AP	X
N	**19**	10078740	PLATE/STP	E441288-1	1	AA	C
N	**20**	10078741	LEVER/STP	E341242-1	1	AA	C
N	**21**	10078755	HOLDER/STP	E341243-1	1	AA	C
			SCREW	3X8 ZMC-3	2		X
			SCREW	3X10 NI	2		X
	3. LOWER DRAWER						
N	**22**	10078903	DRAWER SUB ASSY/LOWER	E341274*1	1	BJ	X
	23	55000619	ROLLER/DERULIN	DR-19B1	2	AG	B
	24	52000106	RIVET	5X30	1	AA	X
N	**25**	62465030	SPRING/EARTH	E412092-1	1	AA	C
N	**26**	10079060	LOCK/CYLINDER	CL-16	1	BA	C
N	**27**	10078900	PANEL/FRONT	E140497-1	1	AV	X
N			SCREW	3X10 NI	2		X
N	**28**	10079068	WASHER	6X13X1.0 ZMC-3	2	AA	X
N	**29**	10078757	CASE/BILL	E140505-1	1	AT	C
	30	62473935	CASE/COIN	E140058-1	1	AX	C
N	**31**	10051420	PLATE/COIN CASE PARTITION	E340173A-1	6	AC	C
	32	62214911	PLATE/BILL CASE PARTITION	ZD43652	3	AC	C
N	**33**	10079062	BILL HOLDER SUB ASSY	E341290*1	4	AE	B
N	**34**	10079063	SPRING/BILL HOLDER	E441357-1	4	AA	C
N	**35**	10079064	BRACKET/BILL HOLDER	E240845-1	1	AD	C
			SCREW	3X8 ZMC-3	3		X
			SCREW	3X5 NI	4		X

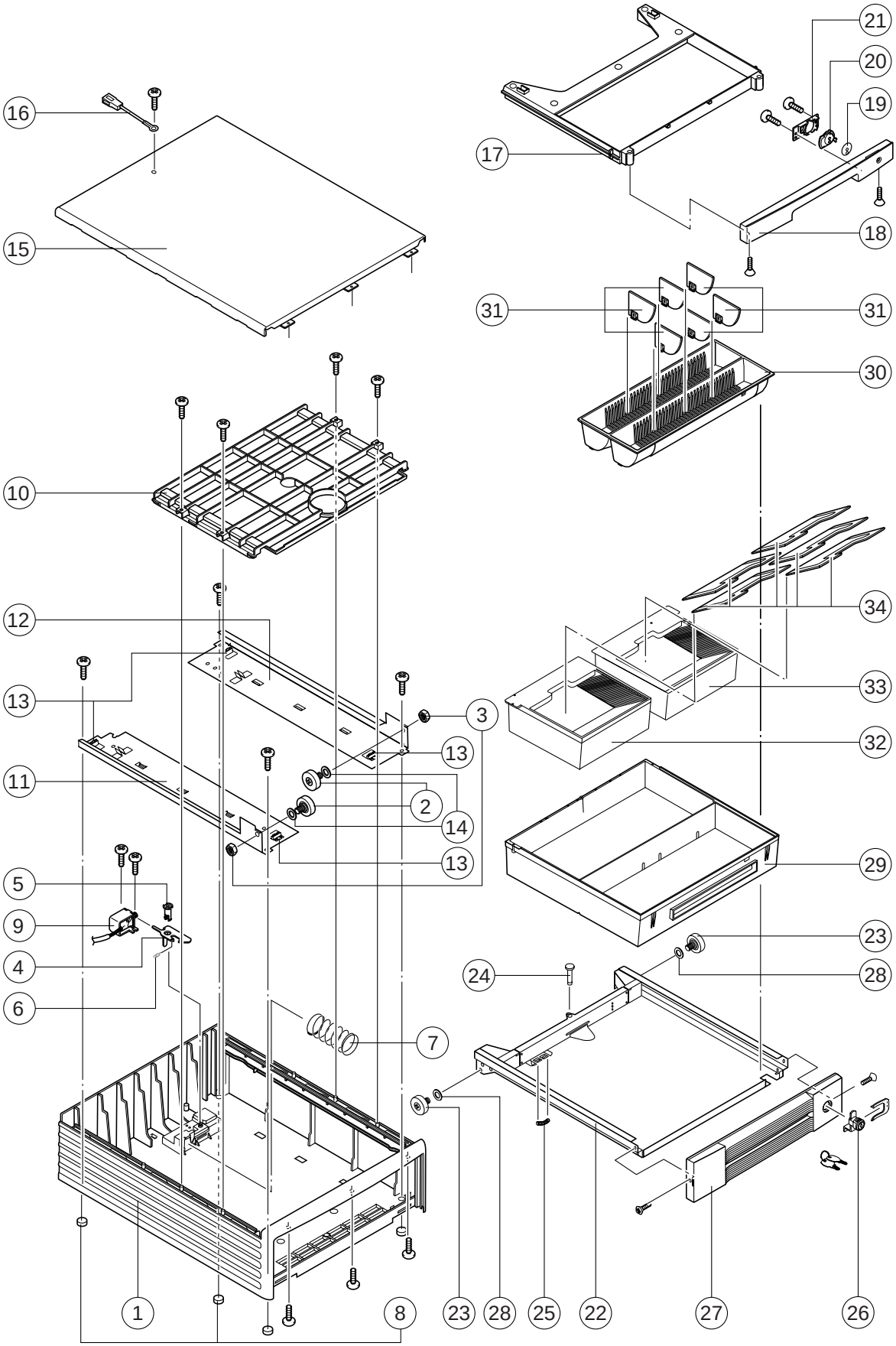
14. DRAWER (DL-2781)



DL-2781(M type) Europe, Germany

N	Item	Code No.	Parts Name	Specification	Qt'y	Price code	Rank
	1. MAIN CASE BLOCK						
N	**1**	10078897	CASE/MAIN	E140494-1	1	BS	X
	2	55000619	ROLLER/DELRIN	DR-19B1	2	AG	B
N	**3**	10079066	NUT	6 ZMC-3	2	AA	X
N	**4**	10078764	LEVER/HOOK	E341286-1	1	AA	C
N	**5**	10078754	AXIS/HOOK LEVER	E341241-1	1	AA	C
			SCREW	3X8 ZMC-3	4		X
N	**6**	10080393	SPRING/LOCK	RJE500007-001	1	AA	X
	7	62465010	SPRING/PRESS	E412069-1	1	AA	X
	8	62466529	RUBBER/PAD	E412136-1	4	AD	X
N	**9**	10078895	SOLENOIDO SUB ASSY	E341301*3	1	BD	B
N	**10**	10078901	COVER/UPPER	E140498-1	1	AN	X
N	**11**	10078759	RAIL/MLED18	E240841-1	1	AQ	C
N	**12**	10078760	RAIL/MRED18	E240842-1	1	AQ	C
N	**13**	10080450	RUBBER/DUMPER	RJE500005-001	4	AB	X
			SCREW	4X10 ZMC-3	6		X
N	**14**	10079068	WASHER	6X13X1.0 ZMC-3	2	AA	X
	15	30007231	SWITCH/MICRO	V-103-1A5	1	BE	B
N	**16**	54400225	SCREW	3X16 ZMC-3	1	AA	X
N	**17**	10078882	COVER/TOP	E240850-2	1	BZ	X
			SCREW	3X8 NI	3		X
N		10080446	LABEL/DL-2781	E341256-17	1	AA	X
	18	62457930	FG LEAD ASSY	E411996*1	1	AF	C
			SCREW	3X8 ZMC-3	1		X
			WASHER	4	1		X
	2. UPPER DRAWER						
N	**19**	10078740	PLATE/STP	E441288-1	1	AA	C
N	**20**	10078741	LEVER/STP	E341242-1	1	AA	C
N	**21**	10078755	HOLDER/STP	E341243-1	1	AA	C
N	**22**	10078898	DRAWER/UPPER	E140495-1	1	AT	X
N	**23**	10078899	PANEL/FRONT	E140496-1	1	AP	X
			SCREW	3X8 ZMC-3	2		X
			SCREW	3X10 NI	2		X
	3. LOWER DRAWER						
N	**24**	10078903	DRAWER SUB ASSY/LOWER	E341274*1	1	BJ	X
	25	55000619	ROLLER/DERULIN	DR-19B1	2	AG	B
	26	52000106	RIVET	5X30	1	AA	X
N	**27**	62465030	SPRING/EARTH	E412092-1	1	AA	X
N	**28**	10079060	LOCK/CYLINDER	CL-16	1	BA	C
N	**29**	10078900	PANEL/FRONT	E140497-1	1	AV	X
			SCREW	3X10 NI	2		X
N	**30**	10079068	WASHER	6X13X1.0 ZMC-3	2	AA	X
N	**31**	10078757	CASE/BILL	E140505-1	1	AT	C
	32	62473935	CASE/COIN	E140058-1	1	AX	C
N	**33**	10079062	BILL HOLDER SUB ASSY	E341290*1	4	AE	B
N	**34**	10079063	SPRING/BILL HOLDER	E441357-1	4	AA	C
N	**35**	10079064	BRACKET/BILL HOLDER	E240845-1	1	AD	C
N	**36**	10051420	PLATE/COIN CASE PARTITION	E340173A-1	6	AC	C
	37	62214911	PLATE/BILL CASE PARTITION	ZD43652	3	AC	C
			SCREW	3X8 ZMC-3	3		X
			SCREW	3X5 NI	4		X

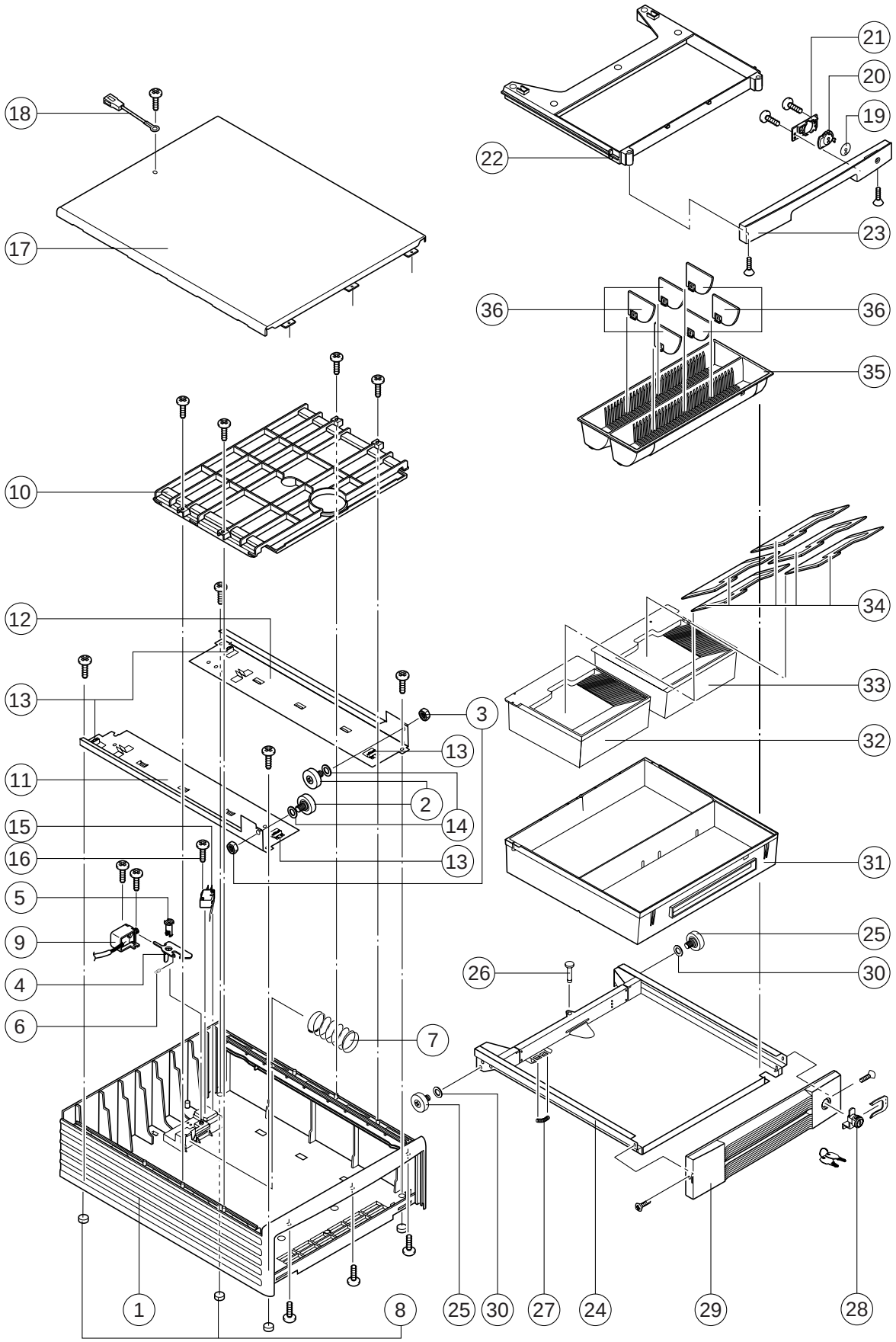
15. DRAWER (DL-2916)



DL-2916(M type) Europe

N	Item	Code No.	Parts Name	Specification	Qt'y	Price code	Rank
	1. MAIN CASE BLOCK						
N	**1**	10078897	CASE/MAIN	E140494-1	1	BS	X
	2	55000619	ROLLER/DELRIN	DR-19B1	2	AG	B
N	**3**	10079066	NUT	6 ZMC-3	2	AA	X
N	**4**	10078764	LEVER/HOOK	E341286-1	1	AA	C
N	**5**	10078754	AXIS/HOOK LEVER	E341241-1	1	AA	C
			SCREW	3X8 ZMC-3	4		X
N	**6**	10080393	SPRING/LOCK	RJE500007-001	1	AA	X
	7	62465010	SPRING/PRESS	E412069-1	1	AA	X
	8	62466529	RUBBER/PAD	E412136-1	4	AD	X
N	**9**	10080421	SOLENOIDO SUB ASSY	E341301*005	1	BC	B
N	**10**	10078901	COVER/UPPER	E140498-1	1	AN	X
N	**11**	10078759	RAIL/MLED18	E240841-1	1	AQ	C
N	**12**	10078760	RAIL/MRED18	E240842-1	1	AQ	C
N	**13**	10080450	RUBBER/DUMPER	RJE500005-001	4	AB	X
			SCREW	4X10 ZMC-3	6		X
N	**14**	10079068	WASHER	6X13X1.0 ZMC-3	2	AA	X
N	**15**	10078882	COVER/TOP	E240850-2	1	BZ	X
			SCREW	3X8 NI	3		X
N		10080448	LABEL/DL-2916	E341256-19	1	AA	X
	16	62457930	FG LEAD ASSY	E411996*1	1	AF	C
			SCREW	3X8 ZMC-3	1		X
			WASHER	4	1		X
	2. UPPER DRAWER						
N	**17**	10078898	DRAWER/UPPER	E140495-1	1	AT	X
N	**18**	10078899	PANEL/FRONT	E140496-1	1	AP	X
N	**19**	10078740	PLATE/STP	E441288-1	1	AA	C
N	**20**	10078741	LEVER/STP	E341242-1	1	AA	C
N	**21**	10078755	HOLDER/STP	E341243-1	1	AA	C
			SCREW	3X8 ZMC-3	2		X
			SCREW	3X10 NI	2		X
	3. LOWER DRAWER						
N	**22**	10078903	DRAWER SUB ASSY/LOWER	E341274*1	1	BJ	X
	23	55000619	ROLLER/DERULIN	DR-19B1	2	AG	B
	24	52000106	RIVET	5X30	1	AA	X
N	**25**	62465030	SPRING/EARTH	E412092-1	1	AA	X
N	**26**	10079060	LOCK/CYLINDER	CL-16	1	BA	C
N	**27**	10078900	PANEL/FRONT	E140497-1	1	AV	X
			SCREW	3X10 NI	2		X
N	**28**	54400399	WASHER	6X13X1.0 ZMC-3	2	AA	X
N	**29**	10078757	CASE/BILL	E140505-1	1	AT	C
	30	62473935	CASE/COIN	E140058-1	1	AX	C
N	**31**	10051420	PLATE/COIN CASE PARTITION	E340173A-1	6	AC	C
N	**32**	10080660	TRAY/BILL LIFT	RJE500012-001	1	AJ	C
N	**33**	10080662	TRAY/BILL RIGHT	RJE500012-002	1	AJ	C
N	**34**	10080663	PLATE/BILL CASE PARTITION	RJE500013-001	5	AB	C
			SCREW	3X8 ZMC-3	3		X
			SCREW	3X5 NI	4		X

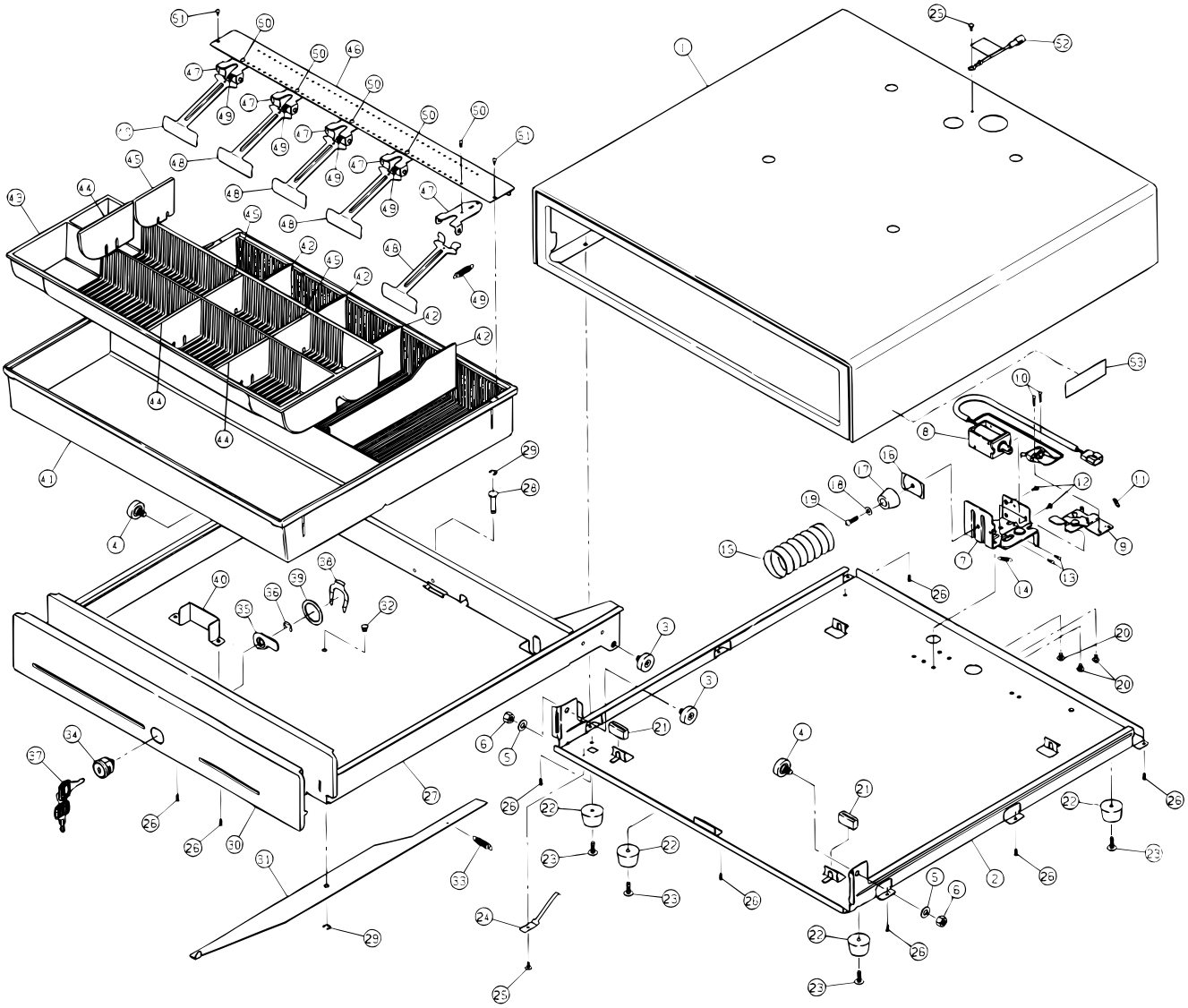
16. DRAWER (DL-2917)



DL-2917(M type) Europe, Germany

N	Item	Code No.	Parts Name	Specification	Qt'y	Price code	Rank
	1. MAIN CASE BLOCK						
N	**1**	10078897	CASE/MAIN	E140494-1	1	BS	X
	2	55000619	ROLLER/DELRIN	DR-19B1	2	AG	B
N	**3**	10079066	NUT	6 ZMC-3	2	AA	X
N	**4**	10078764	LEVER/HOOK	E341286-1	1	AA	C
N	**5**	10078754	AXIS/HOOK LEVER	E341241-1	1	AA	C
			SCREW	3X8 ZMC-3	4		X
N	**6**	10080393	SPRING/LOCK	RJE500007-001	1	AA	X
	7	62465010	SPRING/PRESS	E412069-1	1	AA	X
	8	62466529	RUBBER/PAD	E412136-1	4	AD	X
N	**9**	10078895	SOLENOIDO SUB ASSY	E341301*3	1	BD	B
N	**10**	10078901	COVER/UPPER	E140498-1	1	AN	X
N	**11**	10078759	RAIL/MLED18	E240841-1	1	AQ	C
N	**12**	10078760	RAIL/MRED18	E240842-1	1	AQ	C
N	**13**	10080450	RUBBER/DUMPER	RJE500005-001	4	AB	C
			SCREW	4X10 ZMC-3	6		X
N	**14**	10079068	WASHER	6X13X1.0 ZMC-3	2	AA	X
	15	30007231	SWITCH/MICRO	V-103-1A5	1	BE	B
N	**16**	54400225	SCREW	3X16 ZMC-3	1	AA	X
N	**17**	10078882	COVER/TOP	E240850-2	1	BZ	X
			SCREW	3X8 NI	3		X
N		10080449	LABEL/DL-2917	E341256-20	1	AA	X
	18	62457930	FG LEAD ASSY	E411996*1	1	AF	C
			SCREW	3X8 ZMC-3	1		X
			WASHER	4	1		X
	2. UPPER DRAWER						
N	**19**	10078740	PLATE/STP	E441288-1	1	AA	C
N	**20**	10078741	LEVER/STP	E341242-1	1	AA	C
N	**21**	10078755	HOLDER/STP	E341243-1	1	AA	C
N	**22**	10078898	DRAWER/UPPER	E140495-1	1	AT	X
N	**23**	10078899	PANEL/FRONT	E140496-1	1	AP	X
			SCREW	3X8 ZMC-3	2		X
			SCREW	3X10 NI	2		X
	3. LOWER DRAWER						
N	**24**	10078903	DRAWER SUB ASSY/LOWER	E341274*1	1	BJ	X
	25	55000619	ROLLER/DERULIN	DR-19B1	2	AG	B
	26	52000106	RIVET	5X30	1	AA	X
N	**27**	62465030	SPRING/EARTH	E412092-1	1	AA	X
N	**28**	10079060	LOCK/CYLINDER	CL-16	1	BA	C
N	**29**	10078900	PANEL/FRONT	E140497-1	1	AV	X
			SCREW	3X10 NI	2		X
N	**30**	54400399	WASHER	6X13X1.0 ZMC-3	2	AA	X
N	**31**	10078757	CASE/BILL	E140505-1	1	AT	C
N	**32**	10080660	TRAY/BILL LIFT	RJE500012-001	1	AJ	C
N	**33**	10080662	TRAY/BILL RIGHT	RJE500012-002	1	AJ	C
N	**34**	10080663	PLATE/BILL CASE PARTITION	RJE500013-001	5	AB	C
	35	62473935	CASE/COIN	E140058-1	1	AX	C
N	**36**	10051420	PLATE/COIN CASE PARTITION	E340173A-1	6	AC	C
			SCREW	3X8 ZMC-3	3		X
			SCREW	3X5 NI	4		X

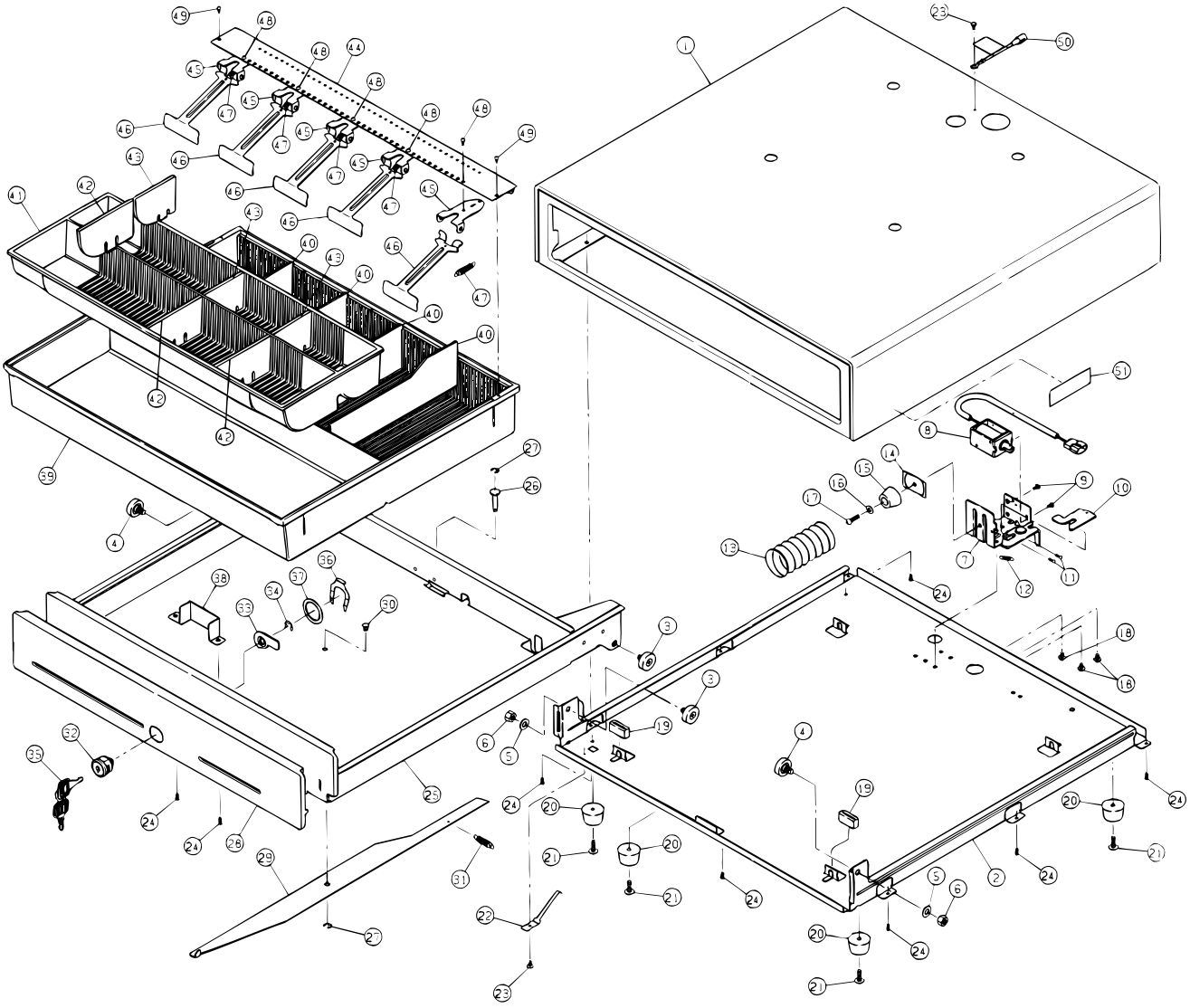
17. DRAWER (DL-3618)



DL-3618 (L type) USA, Canada

N	Item	Code No.	Parts Name	Specification	Qt'y	Price code	Rank
N	2	94870651	CHASSIS/BOTTOM	183A-1101	1	CN	X
	3	55000619	ROLLER/DERLIN	DR-19-B1	2	AG	B
	4	55000878	ROLLER/DERLIN	DR-19-B2	2	AP	B
	5	19079682	WASHER	SW-M6	2	AA	X
	6	19077150	NUT	HN-M6	2	AA	X
	7	19081339	BRACKET/LOCK	37A-B150	1	BL	X
	8	94870387	SOLENOID(Include micro switch)	262A-S154C	1	CD	B
	9	94870395	BRACKET/SHAFT GUIDE	808R-1910	1	BH	X
	10	94870397	SCREW	CP-M2.3X10	2	AA	X
	11	94870413	SPRING/MICRO SWITCH	S808-1557	1	AC	C
	12	94870398	SCREW	CPS-M3X5	2	AA	X
	13	94870573	SCREW	CPDT-M2.6X6	2	AA	X
	14	19083432	SPRING/LOCK	S37-1551	1	AV	C
	15	19064014	SPRING/DRAWER	S40-1351	1	AW	C
	16	19081343	HOLDER/SPRING	44A-1302	1	AW	B
	17	94870405	RUBBER/STOPPER	R37-1561	1	AD	X
	18	19077157	WASHER	PW-M4	1	AA	X
	19	19027095	SCREW	M4X12	1	AA	X
	20	94870399	SCREW	CPS-M4X6	5	AA	X
	21	19064017	RUBBER/STOPPER	262A-1651	2	AN	X
	22	19074259	FOOT/RUBBER	NR13-1461	4	AD	X
	23	94870396	SCREW	CCST-M4X12	4	AA	X
	24	19064018	EARTH/LEAF SPRING	33V-1103	1	AN	X
	25	19064008	SCREW	CCST-M3X6	2	AA	X
	26	94870574	SCREW	CPDT-M3X5	8	AA	X
N	27	94870652	DRAWER	183A-2100	1	DF	X
	28	19077153	SHAFT/HOLDER	12H-5339	1	AD	X
	29	19074264	RING/M4E	RE-4JIS	2	AA	X
N	30	94870653	PANEL/FRONT	185A-2401CY	1	BK	X
N	31	94870654	LEVER/ARM	183A-2501	1	AX	C
N	32	94870655	PIN/LEVER	262A-2531	1	AE	C
N	33	94870656	SPRING/RESET	S262-2553	1	AB	C
N	34	94870657	LOCK/CYLINDER	SL-010L	1	BK	C
N	35	94870658	CAM/LOCK	262A-2502	1	AH	X
N	36	94870659	RING/M5E	RE-5JIS	1	AA	X
N	37	94870660	KEY/CYLINDER LOCK	SL-010K	2	BK	C
N	38	94870661	CLIP	010-2552	1	AH	X
N	39	94870662	WASHER/LOCK KEY	PW-2509	1	AF	X
N	40	94870663	COVER/LOCK KEY	185A-2504	1	AL	X
N	41	94870664	CASE/MONEY	P18A-4151	1	BR	C
	42	19079659	PLATE/BILL CASE PARTITION	70-9602	4	AE	C
N	43	94870665	CASE/COIN	P18A-4153	1	BC	C
	44	94870404	PLATE/COIN CASE PARTITION	P16-4164	3	AF	C
	45	19064021	PLATE/COIN CASE PARTITION	P16-4184	3	AF	C
N	46	94870666	BRACKET/BILL HOLDER	181J-4201	1	BC	X
	47	19074278	STOPPER/BILL HOLDER	13C-4202	5	AF	B
	48	19074279	HOLDER/BILL	16B-4203	5	AF	B
N	49	94870667	SPRING/BILL HOLDER	S18-4254	5	AA	X
	50	94870576	SCREW	CPDT-M3X5Z	5	AA	X
	51	19074282	SCREW	CPTS-M3X6	2	AA	X
	52	19064007	WIRE/FG	FG-3451	1	AJ	X
N	53	94870668	LABEL/DRAWER	PO-3618	1	AC	X

18. DRAWER (DL-3619)



DL-3619 (L type) UK, Europe, Other countries

N	Item	Code No.	Parts Name	Specification	Qt'y	Price code	Rank
N	2	94870651	CHASSIS/BOTTOM	183A-1101	1	CN	X
	3	55000619	ROLLER/DERLIN	DR-19-B1	2	AG	B
	4	55000878	ROLLER/DERLIN	DR-19-B2	2	AP	B
	5	19079682	WASHER	SW-M6	2	AA	X
	6	19077150	NUT	HN-M6	2	AA	X
	7	19081339	BRACKET/LOCK	37A-B150	1	BL	X
	8	19061304	SOLENOID	262A-S153	1	BK	B
	9	94870398	SCREW	CPS-M3X5	2	AA	X
	10	19064012	BRACKET/SHAFT GUIDE	37A-1503	1	AH	X
	11	94870573	SCREW	CPDT-M2.6X6	2	AA	X
	12	19083432	SPRING/LOCK	S37-1551	1	AV	C
	13	19064014	SPRING/DRAWER	S40-1351	1	AW	C
	14	19081343	HOLDER/SPRING	44A-1302	1	AW	B
	15	94870405	RUBBER/STOPPER	R37-1561	1	AD	X
	16	19077157	WASHER	PW-M4	1	AA	X
	17	19027095	SCREW	M4X12	1	AA	X
	18	94870399	SCREW	CPS-M4X6	5	AA	X
	19	19064017	RUBBER/STOPPER	262A-1651	2	AN	X
	20	19074259	FOOT/RUBBER	NR13-1461	4	AD	X
	21	94870396	SCREW	CCST-M4X12	4	AA	X
	22	19064018	EARTH/LEAF SPRING	33V-1103	1	AN	X
	23	19064008	SCREW	CCST-M3X6	2	AA	X
	24	94870574	SCREW	CPDT-M3X5	8	AA	X
N	25	94870652	DRAWER	183A-2100	1	DF	X
	26	19077153	SHAFT/HOLDER	12H-5339	1	AD	X
	27	19074264	RING/M4E	RE-4JIS	2	AA	X
N	28	94870653	PANEL/FRONT	185A-2401CY	1	BK	X
N	29	94870654	LEVER/ARM	183A-2501	1	AX	C
N	30	94870655	PIN/LEVER	262A-2531	1	AE	C
N	31	94870656	SPRING/RESET	S262-2553	1	AB	C
N	32	94870657	LOCK/CYLINDER	SL-010L	1	BK	C
N	33	94870658	CAM/LOCK	262A-2502	1	AH	X
N	34	94870659	RING/M5E	RE-5JIS	1	AA	X
N	35	94870660	KEY/CYLINDER LOCK	SL-010K	2	BK	C
N	36	94870661	CLIP	010-2552	1	AH	X
N	37	94870662	WASHER/LOCK KEY	PW-2509	1	AF	X
N	38	94870663	COVER/LOCK KEY	185A-2504	1	AL	X
N	39	94870664	CASE/MONEY	P18A-4151	1	BR	C
	40	19079659	PLATE/BILL CASE PARTITION	70-9602	4	AE	C
N	41	94870665	CASE/COIN	P18A-4153	1	BC	C
	42	94870404	PLATE/COIN CASE PARTITION	P16-4164	3	AF	C
	43	19064021	PLATE/COIN CASE PARTITION	P16-4184	3	AF	C
N	44	94870666	BRACKET/BILL HOLDER	181J-4201	1	BC	X
	45	19074278	STOPPER/BILL HOLDER	13C-4202	5	AF	B
	46	19074279	HOLDER/BILL	16B-4203	5	AF	B
N	47	94870667	SPRING/BILL HOLDER	S18-4254	5	AA	X
	48	94870576	SCREW	CPDT-M3X5Z	5	AA	X
	49	19074282	SCREW	CPTS-M3X6	2	AA	X
	50	19064007	WIRE/FG	FG-3451	1	AJ	X
N	51	94870669	LABEL/DRAWER	PO-3619	1	AC	X

Ver. 1 : Correcttion of page 93 and page 100.

Ver. 2 : Correction of page 1 and 3.

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